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SAN FRANCISCO
BAY AREA RAPID TRANSIT DISTRICT

DRAFT FOR DISCUSSION PURPOSES

SHORT - RANGE TRANSIT PLAN

FOR THE TEN YEAR PERIOD
JULY 1992 THROUGH JUNE 2002

FY 1993 - FY 2002

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SAN FRANCISCO BAY AREA RAPID TRANSIT DISTRICT

SHORT-RANGE TRANSIT PLAN

FISCAL YEARS 1993 - 2002

The preparation of this report has been financed in part through a grant from the United States Department of Transportation, Federal Transportation Administration under the Urban Mass Transportation Act of 1964, as amended and passed through the Metropolitan Transportation Commission. This report has been prepared in conformance with MTC guidelines for Short-Range Transit Plans as revised in March 1990.

The contents of this report reflect the views of BART which is responsible for the facts and the accuracy of the data presented herein. The contents do not necessarily reflect the original views or policy of the U.S. Department of Transportation. This report does not constitute a standard, specification, or regulation.

All projects discussed are subject to state and federal environmental review as required by law. Specific projects and project funding are subject to approval by the BART Board of Directors. Projects that do not yet satisfy these requirements are proposed projects.

July 9, 1992

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Bay Area Rapid Transit District
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CHAPTER 1

BART ORGANIZATION AND SYSTEM OVERVIEW

DISTRICT CHARTER AND ORGANIZATION

The San Francisco Bay Area Rapid Transit District was created by the California State Legislature in 1957 in response to Bay Area growth and transportation needs. Initial efforts focused on establishing the organization for the purpose of fulfilling the BART District charter which calls for the construction, operation, and maintenance of a rapid transit system in the Bay Area. Voter approval in 1962 of a $792 million general obligation bond issue in San Francisco, Alameda, and Contra Costa counties provided the initial funding base and authorization to begin construction of the 71 mile system: the first new rail transit system to be built in the United States in over 60 years and the first rail system to make large-scale use of computer technology.

The District is governed by nine elected Board of Directors, each member representing their respective local constituents within the three-county District. Board meetings are normally conducted twice each month, are subject to prior notice, and are open to the public. Directors serve on various standing committees and special committees of the Board to deliberate and make recommendations to the full Board. These meetings are also subject to prior public notice and are open to the public.

The organization at the staff level (Figure ___, BART Organization Chart) reflects a management structure that has evolved to effectively carry out the District's programs and policies. The General Manager, General Counsel, Controller/Treasurer, and District Secretary are Board-appointed officers and report directly to the Board of Directors. Other executive staff members consist of the Deputy General Manager, three Assistant General Managers, and three Executive Managers. These seven executive staff members report directly to the General Manager. Reporting to the executive staff are 30 Department Managers and their respective staffs. BART's total budgeted workforce for FY 92 was 2,632 full-time and 41 part-time positions.

MAJOR COMPONENTS OF BART'S CAPITAL PLANT

The 1962 general obligation bond issue provided funding for the basic BART system (Figure ___, System Map) which included: 71 miles of double-mainline track, three maintenance facilities and associated yards, 450 vehicles (ten of which have been retired from the operating fleet), an administration/central control facility, and 34 stations. Capital improvements made over the years have added to this inventory base and include 150 more cars, the Daly City Yard and Maintenance Facility, the KE subway track through downtown Oakland, and a new central train control computer.

Track and Right-of-Way

Figure _____

BART ORGANIZATION CHART

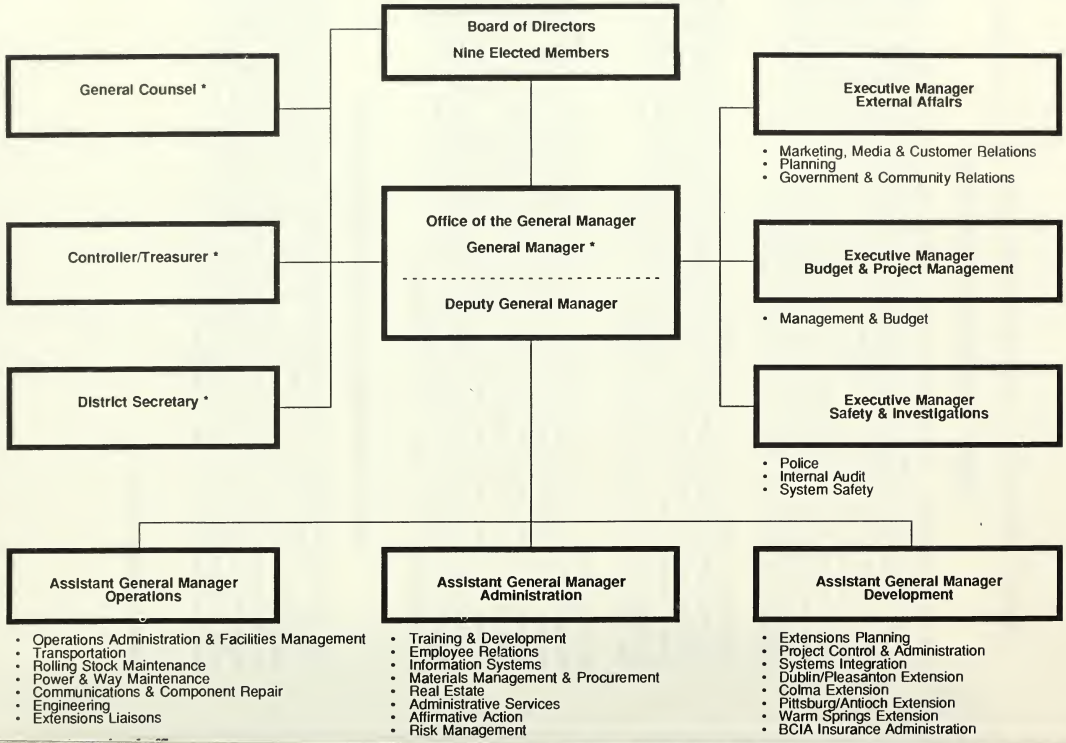
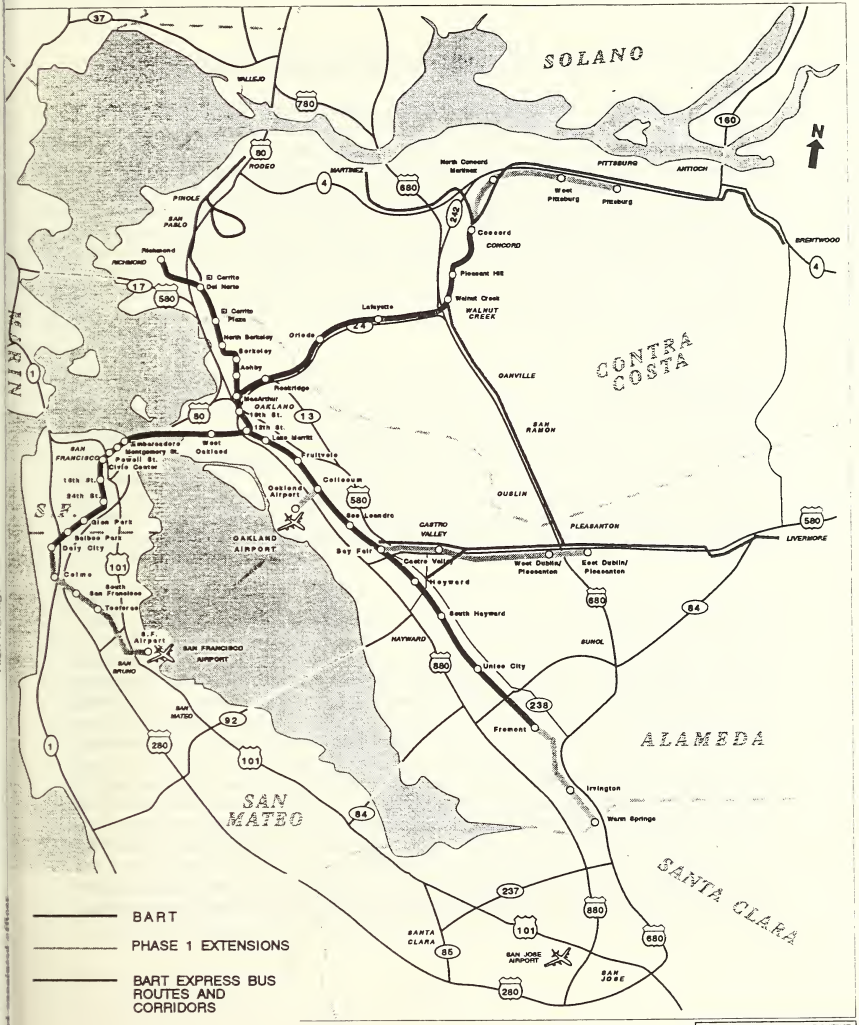


Figure _: BART SYSTEM MAP



BART is a third-rail 1,000 volt DC electrically powered railway. The rail right-of-way is fully protected and has no grade crossings. BART's rail right-of-way consists of 71 miles of continuously welded double-mainline 66 inch gauge track (142 miles, bi-directional). Approximately 20 miles of double-mainline track are in subway, 24 miles are elevated, and 27 miles are at grade. There are 54.5 miles of additional single track located in yards, sidings, and other locations. All but 3.2 miles of this latter amount are at grade, and include leads and sidings located in the four maintenance yards. The remaining 3.2 miles largely constitute the KE track through downtown Oakland which is 1.8 miles in subway. A special track geometric vehicle is used to analyze the running rails and electric third rail. Tracks are routinely inspected and maintained to insure structural integrity and a smooth operating surface. Trackwork is routinely scheduled and performed during non-revenue hours.

Maintenance Yards

Routine preventative maintenance is carried out in accordance to specific schedules and is performed at four facilities, three of which are located in the East Bay (at Concord, Hayward, and Richmond), and one in the West Bay (at Daly City). In addition to scheduled maintenance functions, BART's Hayward shop also handles accident damage repairs. An additional maintenance facility located between Lake Merritt and Fruitvale Stations (Oakland Shops) provides support to buildings and grounds and equipment other than rail vehicles.

Revenue Vehicles

BART owns three types of revenue vehicles: control equipped A- and C-cars and non-control equipped B-cars. A- and B-cars are BART's first generation vehicles which were manufactured between 1971 and 1975. C-cars constitute BART's second generation fleet and were manufactured between 1987 and 1990. Control equipped A-cars are 75 feet long by 10.5 feet wide, have 72 seats, and can only be used as a lead or trail vehicle on each train. Non-control equipped B-cars also have 72 seats, are 70 feet by 10.5 feet, and can only be used as mid-train vehicles. Control equipped C-cars have 64 seats (plus dedicated spaces for passengers in wheelchairs), are 70 by 10.5 feet, and can be used as lead, mid-train, or trail vehicles. Trains are operated from the lead A- or C-car. Train movements are automatically controlled by computers located along the right-of-way. Overall system train supervision is provided by BART's train control computer at BART Central located in the Lake Merritt Administration Building in downtown Oakland. Train operators aboard each train can override the automatic system should the need arise.

BART's current fleet of 589 vehicles includes 136 A-cars, 303 B-cars, and 150 C-cars. One additional A-car is used as an engineering test vehicle. Permissible train lengths range from three to ten cars. [The three-car minimum train length is a California Public Utilities Commission requirement. The ten-car maximum length corresponds to station platform lengths.] Resulting capacity is between 192 and 720 seated passengers for a three and a ten-car train, respectively. Vehicle performance specifications include a maximum 80 mile per hour speed. Revenue service is based on a 70 mile per hour maximum speed, with the 80 mile per hour capability reserved for maintaining schedule adherence.

Stations and Parking

The system currently has 34 stations, 14 of which are in subway, 13 elevated, and 7 at grade. All stations have platform lengths of approximately 700 feet to accommodate BART's maximum train length of ten cars. Average station spacing is between 0.5 to 1.0 mile within and adjacent to San Francisco, Oakland, and Berkeley downtown areas, and 2.0 to 4.0 miles apart in suburban areas.

Stations are fully accessible and have elevators and escalators, in addition to stairways, linking the various levels to streets, connecting local transit, and parking areas. In downtown San Francisco and Oakland, special subway entrances provide direct access between stations and retail establishments.

Automatic fare collection equipment is located in each station to vend and process passenger tickets. Automated train destination signs on the platform level of each station provide a visual display of an arriving train's destination and other information. All stations have special displays on the platform and concourse levels to provide additional information with regard to train schedules, local area destinations, connecting transit, and other information to assist BART riders. A public address system linked to BART headquarters is used to provide additional passenger information. This system is also used locally at each station by station agents.

Depending upon location, other passenger amenities and station access facilities include dedicated bus lanes and berths, bus stop shelters, transit information centers, regional transit ticket outlets, transfer dispensers, bicycle racks, and parking (Figure __, Station Amenities Summary).

Parking is an important feature at suburban stations, where a majority of BART riders drive to a station and park. As of June 1992, BART's parking inventory consisted of 30,556 free spaces at 23 stations and 205 spaces at one additional station at a daily

Figure __

STATION AMENITIES SUMMARY

To Be Provided

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charge of 25¢. Free parking is also provided at four BART express bus park-ride lots which contain a total of 1,156 spaces (Figure __, Parking Space Inventory).

Administration/Central Control Facility

BART's administrative headquarters are located at 800 Madison Street in downtown Oakland, above Lake Merritt Station. This facility also houses BART's central train control computer. While trains are automatically controlled by wayside equipment located along the trackway and stations, the central train control computer at BART headquarters provides overall systemwide supervision of train movements. BART Central is an around-the-clock operation. Train Controllers and other BART certified personnel located at Central monitor train movements and can override the automatic system should the need arise. A two-way radio system provides voice communication between BART Central and all train operators. A separate telephone system provides voice communication to station agents. Remote cameras located at key locations allow BART Central personnel to visually monitor train movements and station activities.

BART SERVICE DESCRIPTION

Rail service is provided between the hours of 4:00 a.m. and 1:30 a.m. Monday through Friday, 6:00 a.m. to 1:30 a.m. on Saturdays, and 8:00 a.m. to 1:30 a.m. on Sundays and major holidays. Closing times for individual stations are coordinated with the schedule for the last train departure beginning approximately at midnight (Figure __, BART Rail Headways and Hours of Service). The following service description reflects BART's June 22, 1992 schedule change which is based on faster train speeds relative to the prior schedule. BART express bus service is coordinated with the rail schedule, and is presented in a separate section below.

Early Morning Rail Service - Weekdays

Weekday service begins at approximately 4:00 a.m. with the first four train dispatches of the day at each of the system's four terminal stations. These trains operate on the Concord-Daly City and Fremont-Richmond routes. This service configuration is also known as two-route "X" service, and requires a transfer in downtown Oakland for trips which at other times are served by the Fremont-Daly City and Richmond-Daly City routes. A second set of four trains on the Concord-Daly City and Fremont-Richmond routes is dispatched 30 minutes later at approximately 4:30. At approximately 5:00 a.m., service transitions to four-route weekday base service, which continues until the start of morning peak service at about 6:00 a.m.

Figure ___
BART PARKING SPACE INVENTORY
SPACES ADDED DURING FISCAL YEAR 1992

LINE AND STATION	NUMBER OF BART-OWNED PAVED PARKING SPACES AS OF JUN 1991	PLANNED FOR FY 92	ADDED IN FY 92	AS OF JUN 1992
SAN FRANCISCO LINE				
DALY CITY	1,937	0	0	1,937
GLEN PARK	55	0	0	55
WEST OAKLAND	424	0	0	424
SUBTOTAL	**2,416**	**0**	**0**	**2,416**
FREMONT LINE				
FREMONT	2,494	0	0	2,494
UNION CITY	1,218	0	0	1,218
SOUTH HAYWARD	1,307	0	0	1,307
HAYWARD	1,061	0	0	1,061
BAY FAIR	1,903	0	0	1,903
SAN LEANDRO	1,295	0	0	1,295
COLISEUM	1,059	0	0	1,059
FRUITVALE	1,103	0	0	1,103
LAKE MERRITT *	205	0	0	205
SUBTOTAL	**11,645**	**0**	**0**	**11,645**
RICHMOND LINE				
RICHMOND	796	0	0	796
EL CERRITO DEL NORTE	2,516	0	0	2,516
EL CERRITO PLAZA	795	0	0	795
NORTH BERKELEY	840	0	0	840
ASHBY	626	0	0	626
MACARTHUR	609	0	0	609
SUBTOTAL	**6,182**	**0**	**0**	**6,182**
CONCORD LINE				
CONCORD	1,975	0	0	1,975
PLEASANT HILL	2,045	1,200	1,200	3,245
WALNUT CREEK	1,518	0	0	1,518
LAFAYETTE **	1,521	0	0	1,521
ORINDA **	1,380	0	0	1,380
ROCKRIDGE **	879	0	10	889
SUBTOTAL	**9,318**	**1,200**	**1,210**	**10,528**
RAIL TOTAL	**29,561**	**1,200**	**1,210**	**30,771**
EXPRESS BUS PARK/RIDE				
NORTH CONCORD/MARTINEZ	538	0	0	538
WEST PITTSBURG	213	0	0	213
EAST ANTIOCH	252	0	0	252
WEST LIVERMORE	153	0	0	153
EXPRESS BUS TOTAL	**1,156**	**0**	**0**	**1,156**
SYSTEM GRAND TOTAL	***30,717***	***1,200***	***1,210***	***31,927***

* A $0.25 parking charge is in effect at Lake Merritt Station. All other BART-owned parking is free.

** Spaces at Lafayette, Orinda, and Rockridge stations are subject to special parking controls.

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Figure __

BART RAIL HEADWAYS AND HOURS OF SERVICE *

	TRANSBAY ROUTES			EAST BAY	CITY CENTER LINE SEGMENT	
	Concord-Daly City	Fremont-Daly City	Richmond-Daly City	Fremont-Richmond	San Francisco	Downtown Oakland
HEADWAYS (min)						
WEEKDAY						
Peak Hour	7.5	12.0	15.0	15.0	3.8	3.8
Midday	15.0	15.0	15.0	15.0	5.0	5.0
Night	20.0	*	*	20.0	20.0	10.0
SATURDAY						
Daytime	20.0	20.0	20.0	20.0	6.7	6.7
Night	20.0	*	*	20.0	20.0	10.0
SUNDAY						
All Day	20.0	*	*	20.0	20.0	10.0
SERVICE HOURS (time)						
WEEKDAY						
First Train lv	0400	0441#	0454#	0354	0411	0430
Last Train ar	0120	2115#	2053#	0126	0109	2452
SATURDAY						
First Train lv	0605	0603	0605	0603	0600	0602
Last Train ar	0120	2020#	1957#	0126	0109	2452
SUNDAY						
First Train lv	0804	*	*	0800	0815	0811
Last Train ar	0120	*	*	0126	0107	2452

** **NOTE:** Chart reflects information as of June 22, 1992. An asterisk (*) denotes a route not in service during the identified time period. A pound symbol (#) indicates that earlier and/or later service is available on other routes. In both instances (* and #), travel is accommodated on other routes with one transfer in downtown Oakland.*

FILE: C:\SRTP\FY92\DOCUMENT\FIGURES\RAILHRS, June 26, 1992

Peak Period Rail Service - Weekdays

Peak period service corresponds to weekday commute hours, typically between 6:00 a.m. to 9:00 a.m. and 4:00 p.m. to 7:00 p.m. Monday through Friday. During these times, trains are operated at closer headways than during base service in order to provide sufficient capacity to meet higher home-to-work travel demand. During the morning commute, there are 43 trains in operation systemwide, providing service at a minimum scheduled headway of 3.75 minutes through San Francisco and downtown Oakland. This same minimum headway service is operated during the afternoon commute period. Peak service currently requires 453 vehicles, 398 online and 55 additional cars used for transition (yard moves) and spare trains. Nearly all Transbay trains are at their 10-car maximum during peak commute hours.

Base Rail Service - Weekdays, Daytime

Base daytime rail service on weekdays consists of 15-minute headways on each of the four routes in both directions: the three Transbay routes between Daly City and Concord, Fremont, and Richmond, and the East Bay route between Fremont and Richmond. The transition to base service begins during the last hour of the morning peak, at approximately 8:00 a.m. Base service continues until approximately 3:00 p.m. at the start of afternoon commute dispatches. Base weekday service requires 36 trains operating on the system and results in the following bi-directional service frequencies: a train every 5 minutes between Daly City and West Oakland, a train every five minutes between MacArthur and 12th Street/Oakland City Center; a train every 7.5 minutes between Richmond and MacArthur, a train every 7.5 minutes between Fremont and Lake Merritt; and a train every 15 minutes between Concord and MacArthur. Trains stop at all stations along their designated route (skip-stop service is currently not operated). The systemwide average speed, including stations stops, is 36.3 miles per hour. As for all service periods, trains are sized to accommodate demand in compliance with BART's load factor standards.

Base Rail Service - Nights

Base night service consists of bi-directional 20-minute train headways on two routes: Concord-Daly City and Fremont-Richmond. This two-route "X" service requires a transfer in downtown Oakland for trips which at other times are served by the Fremont-Daly City and Richmond-Daly City routes. Base night service requires 16 online trains and begins at approximately 7:00 p.m. with the first four terminal-station dispatches (two on each

route in both directions). The last four terminal-station train dispatches occur just after midnight. Individual station closings are coordinated with the schedule for these trains as they pass through their respective stations. These last four revenue train dispatches end their runs at approximately 1:30 a.m.

Base Rail Service - Weekends and Holidays

Base daytime Saturday service consists of 28 trains online operating at 20-minute headways on all four routes between the hours of 6:00 a.m. and 7:00 p.m. After 7:00 p.m., base night service is in effect until closing. Base Sunday rail service consists of 16 trains online operating at 20-minute headways on a two-route "X" service schedule (the same as Base Night Service) between the hours of 8:00 a.m. and closing. Except for train lengths and some minor schedule modifications, BART provides the following service schedules on holidays:

Celebrated Holiday	Schedule
New Years Day	Sunday
Martin Luther King Day	Weekday
Presidents' Day	Saturday
Memorial Day	Saturday
July 4th	Saturday
Labor Day	Saturday
Columbus Day	Weekday
Veterans' Day	Weekday
Thanksgiving	Sunday
Day After Thanksgiving	Weekday
Christmas	Sunday

Special Rail Service

BART service is coordinated with major Bay Area events served by the system. Additional service for special events is provided in three ways. The first is by lengthening regularly scheduled trains which are less than 10 cars long. This method works well during offpeak times when nearly all trains are less than 10 cars in length, and when BART demand to a particular event does not warrant higher train frequencies. For events which require greater capacity and/or frequency of service, additional trains are placed in operation. This second method of adding service and capacity is typically implemented when the demand for BART associated with an event is sharply peaked such as following the end of a baseball game, rock concert, or other event having a large attendance. The third way BART accommodates service to special events is to provide revenue operations

Figure __

BART EXPRESS BUS HEADWAYS AND HOURS OF SERVICE

An Asterisk (*) Denotes No Service Provided During Time Period Shown

	LIVERMORE VALLEY & BAY FAIR & HAYWARD STATIONS				EASTERN CONTRA COSTA & CONCORD STATION				DUBLIN & WALNUT CK STA		RODEO & DEL NORTE	
	U	UL	UP	UX	PE	PE1	P2X	ME	D	DX	J	Q
***HEADWAYS** (minutes):*												
WEEKDAY												
Peak Hour	30	30	20	30	30	30	*	30	*	30	30	30
Midday	30	60	*	*	60	60	*	*	*	60	30	*
Night	60	*	*	*	*	*	60	60	*	60	40	*
SATURDAY												
Daytime	30	*	*	*	*	*	60	*	40	*	30	*
Night	60	*	*	*	*	*	60	60	60	*	40	*
SUNDAY												
Daytime	60	*	*	*	*	*	60	60	60	*	40	*
Night	60	*	*	*	*	*	60	60	60	*	*	*
***SERVICE HOURS** (time):*												
WEEKDAY												
First Bus lv	0453	0455	0607	0535	0512	0418	2032	0535	*	0437	0453	0518
Last Bus ar	0112	2015	1929	1937	2107	2146	0201	0050	*	0025	0054	2056
SATURDAY												
First Bus lv	0525	*	*	*	*	*	0555	0535	0607	*	0656	*
Last Bus ar	0056	*	*	*	*	*	0210	0047	0111	*	0034	*
SUNDAY												
First Bus lv	0755	*	*	*	*	*	0655	0928	0824	*	1007	*
Last Bus ar	0056	*	*	*	*	*	0155	0027	0111	*	1917	*

FILE: C:\SRTP\FY92\DOCUMENT\FIGURES\XBUSHRS.FIG, June 29, 1992

at times when the system is normally closed, such as an early-Sunday morning opening as is done for the annual Bay-to-Breakers foot race in San Francisco. Examples of special BART service include: extended hours of operation on New Year's Eve; longer and more trains to serve athletic/special events at the Oakland Coliseum, U.C. Berkeley, and San Francisco Civic/Convention Center; special early Sunday morning opening and express trains to Bay-to-Breakers in San Francisco, and "Shoppers' Specials" trains each Sunday between Thanksgiving and Christmas.

Express Bus Service

As an interim measure until rail extensions come online, BART provides express bus service on 12 routes within five major travel corridors in Alameda and Contra Costa Counties (Figure __, BART Express Bus Headways and Hours of Service). All express bus service is coordinated with BART rail schedules, and is provided under contract with Laidlaw Transit, Inc. A total of 1,156 free parking spaces are currently provided at four express bus park-ride lots which are located on future extension station sites: North Concord/Martinez (538 spaces), West Pittsburg (213 spaces), East Antioch (252 spaces), and West Livermore (153 spaces).

BART Express Bus Corridors

1. I-80 between El Cerrito del Norte Station and Pinole, Hercules, and Rodeo
2. SR-4 between Concord Station and Martinez
3. SR-4 between Concord Station and Pittsburg, Antioch, and Brentwood
4. I-680 between Walnut Creek Station and Dublin and Pleasanton
5. I-580 between Bay Fair/Hayward Stations and Dublin, Pleasanton, and Livermore

FARES

BART fares are computed on a distance-based formula with surcharges for Transbay service, Daly City Station origin or destination (Daly City Station is in non-member San Mateo County), and a speed premium (Figure __, BART Fare Components and Ticket Prices). The base fare is currently 80¢ for the shortest trips and trips within downtown areas. The highest fare is currently $3.00 for the 36-mile Transbay trip between Fremont and Daly City (Figure __, BART Fares and Travel Times). The average rail passenger fare including discounts in FY 91 was $1.37.

BART provides a 90% discount to children between the ages of 5 and 12 (children under 5 can ride free), to persons 65 and over, and to persons with a qualifying medical

Figure __

BART FARE COMPONENTS AND TICKET PRICES

Notes Appear On Following Page

TRIP LENGTH:	Up to 6 miles	80¢
	Between 6 and 14 miles [1]	92¢ + 6.9¢/mile
	Over 14 miles	$1.47 + 4.1¢/mile
SURCHARGE:	Transbay	45¢
	Daly City [2]	52¢
SPEED PREMIUM:	Charge differential for faster or slower than average trips, based on scheduled travel time	±2.5¢/minute
RESULTING FARES:	Range [3]	80¢ to $3.00
	Average fare (before discounts) [4]	$1.52
	Average fare paid (after discounts) [4]	$1.34
RAIL FARE DISCOUNTS & SPECIAL FARES: [5]	Children under 5	Free
	Children 5 through 12 (90% discount)	$1.60 ($16 value)
	Persons 65 and over (90% discount)	$1.60 ($16 value)
	Qualifying handicapped (90% discount)	$1.60 ($16 value)
	Regular adult (6.25% discount)	$30 ($32 value)
	Excursion (entry/exit, same station) [6]	$2.60
SEMI-MONTHLY RAIL/BUS PASS:	BARTPlus (w/ $15 to $50 BART value) [7]	$24-$57 (8 denom)
	Premium BARTPlus (w/ $14 BART value) [8]	$36-$47 (3 denom)
MONTHLY RAIL/ SF MUNI PASS: [9]	BART/MUNI Fast Pass -- (unlimited monthly use of BART and MUNI within San Francisco)	$30
ONE-WAY TRANSFERS TO: [10] **(Issued at rail stations)**	BART Express Bus -- Zone 1	Free (75¢ value)
	Zone 2	40¢ (75¢ value)
	CCC Transit Authority	25¢ (50¢ value)
	Union City Transit	25¢ (25¢ value)
ROUND-TRIP TRANSFERS TO/FROM: [10] **(Issued at rail stations)**	AC Transit -- From BART	60¢ (40¢ value)
	To BART	60¢ (40¢ value)
	SF MUNI, within SF -- From BART	85¢ ($0 value)
	To BART	Free (85¢ value)
	SF MUNI, Daly City Station -- From BART	Free (85¢ value)
	To BART	Free (85¢ value)
BART EXPRESS BUS: **(1 Zone/2 Zone)**	Children under 5	Free
	Children 5 through 12	15¢/30¢
	Regular Adult	75¢/$1.15
	Persons 65 and over	15¢/30¢
	Qualifying handicapped	15¢/30¢

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Figure __ (continued)

BART FARE COMPONENTS AND TICKET PRICES, NOTES

1. Trips over 6 miles within East Bay Suburban Zone (Concord-Orinda, Fremont-Bay Fair, Richmond-Ashby) priced at fare indicated for trips under 6 miles.

2. The Daly City surcharge does not apply to Transbay trips.

3. BART rail fares are computed by automatic fare collection equipment and are rounded to the nearest 5¢. The current range of fares is based on the most recent fare increase (averaging 32%) which occurred on January 1, 1986. Prior fare increases occurred on September 9, 1982, June 6, 1980, and November 11, 1975.

4. The average rail fare before and after discounts includes rail passenger revenue from all fare instruments, including the BART/MUNI Fast Pass. The figures shown are for FY 91.

5. Discounted tickets are sold at outside retail and community outlets through BART's Tickets-To-Go program (as of March 18, 1992, there were 472 BART ticket outlets in addition to 99 outlets covered under the MTC-sponsored Regional Transit Connection). In-station sales booths at Montgomery, Embarcadero, 12th Street, and Hayward also sell a variety of ticket types. BART's Pass Office sells all ticket types via mail order.

6. There is a three-hour limit on the excursion fare.

7. The semi-monthly BARTPlus ticket was made available starting on April 1, 1991 and is valid for unlimited rides on BART express buses and eight other systems (excludes Transbay and some express bus service) which connect with BART rail. These other systems are: AC Transit, MUNI, SamTrans, Contra Costa County Transit Authority, Santa Clara County Transportation Agency, Union City Transit, Dumbarton Express, and Martinez Link. BARTPlus features a last ride bonus which allows riders to complete one final BART trip of any length with a minimum of 5¢ of stored value remaining on the ticket. Excess remaining stored BART value may be used within a five-day grace period following the last day of the designated half-month.

8. The semi-monthly Premium BARTPlus ticket was made available starting on February 1, 1992. This fare instrument has the same basic features as BARTPlus and includes longer-distance and express services provided by the following Bay Area transit operators: Dumbarton Transbay service, Golden Gate Transit Transbay bus and ferry service, Vallejo Transit bus service.

9. The BART/MUNI Fast Pass was made available starting April 1, 1983 and is sold at all San Francisco MUNI pass outlets.

10. Except for the two-part (round trip) MUNI transfers issued in San Francisco stations at a cost of 85¢, all other one-way and round-trip transfers are issued free of charge from vending machines which are located inside the paid area of BART rail stations. Riders needing connecting services can obtain transfers prior to exiting the BART paid area. Additional fares, if required, are paid upon boarding the connecting carrier. This additional fare is shown in the right-hand column. The values shown in parentheses correspond to the discount. [To determine each connecting carrier's base fare, add the additional fare paid on board to the discount.]

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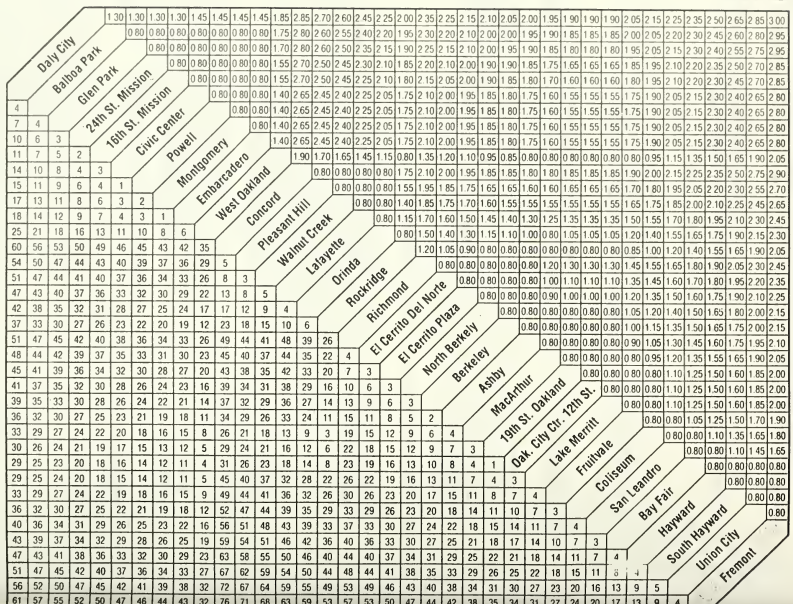
Figure __

BART FARES AND TRAVEL TIMES

(Travel Times Reflect The Train Schedule Effective June 22, 1992)



condition or mobility impairment. Anyone who does not qualify for these discounts can purchase a $32 high-value ticket for $30, for a 6.25% savings.

Additional discounts are provided in conjunction with travel on other transit systems which connect with BART. The combined BART/MUNI Fast Pass allows unlimited use of San Francisco Municipal Railway services and BART within the City of San Francisco. The current price of the monthly Fast Pass is $30. The most recent multi-operator fare instruments to be implemented are BARTPlus and Premium BARTPlus, both of which are a combined BART ticket and pass valid for one-half month on BART and other Bay Area transit systems which serve BART rail stations. Special features of these and other fare instruments are summarized in the notes section of Figure __, BART Fare Components and Ticket Prices.

CHAPTER 2

SERVICE AND PROGRAM EVALUATION

SYSTEM EVALUATION VERSUS MISSION AND GOALS

Throughout its history, BART's mission has been *to deliver safe, reliable, customer-oriented transportation.* With two decades of operational experience under its belt as a public service organization and an additional decade in its engineering and construction phase, BART continues to be guided by those key descriptive words: Safe. Reliable. Customer-oriented. Evolution of BART has been greatly influenced by challenges presented on many fronts including those relating to technology, fiscal requirements, and political realities. Notwithstanding, the organization has continually set high standards for itself and has been driven to strive for excellence. Central to this is the importance BART places on nurturing a talented and dedicated workforce, one which is capable of maintaining the vitality of the system while at the same time forging ahead and meeting the challenges of the future. How this is accomplished and to what degree of effectiveness depends a great deal on the policies and processes put in place to bring about positive change.

This evaluation of BART service and programs is structured around the policy framework that guides its operations and development of new services. BART's goals are the starting point, policy statements which provide focus and help establish priorities, as well as provide seed for new programs (see Figure ___, BART Goals). How well BART performs is best revealed by its performance indicators and adopted standards, measures of success which link actions to desired results. A summary of BART performance relative to its adopted standards is presented in Figure __ (BART Performance Indicators and Standards, First Half FY 92). The following discussion presents information about BART services and programs as related to the District's eight goals.

Special SRTP topics are discussed as they relate to individual goals. These include: capital program planning and implementation, congestion management planning, contingency planning, DBE compliance and Title VI, elderly and handicapped accessibility issues, privatization, and MTC Productivity Improvement Program (PIP) per BART's 1990 Performance Audit and inter-operator coordination/SB-602 based projects. Note that BART's PIP projects are discussed under respective goals to which they relate. A summary of the status of all BART's PIP projects is presented in Figure __ (Status for BART's FY 92 Productivity Improvement Program Projects). A more detailed discussion of ridership, capacity (i.e., load factors), and financial performance follows the goals' section.

Goal 1: Provide Safe, Reliable, and Economical Transportation

BART's first goal follows directly from its mission statement to deliver safe, reliable, customer-oriented transportation. While train performance is a central theme, emphasis

FIGURE _

BART GOALS

1. Provide safe, reliable, high-quality and economical transportation service to the Bay Area community.

2. Deliver user-friendly services to all our customers.

3. Empower employees to function as owners of the BART organization.

4. Provide an environment free of impediments to opportunities for employees and disadvantaged business enterprises, and one which encourages cooperation and develops an organizational team of highly motivated staff.

5. Develop BART services and facilities to expand District markets and capture new revenue sources.

6. Secure and manage the funds necessary to maintain and expand the system and to operate BART according to fiscally sound business practices.

7. Take the leadership role in integrating various features of regional transportation systems in policy, finance, and operations.

8. Build constituencies at all levels of government to support the BART organization and its programs.

Figure ___
BART PERFORMANCE INDICATORS & STANDARDS
FIRST HALF, FY 92 ACHIEVEMENTS

PERFORMANCE INDICATORS (a)	OCT-DEC 1991 QUARTER ACTUAL	STANDARD (b)	STATUS (c)	PRIOR QUARTERS LAST QTR THIS YEAR	THIS QTR LAST YEAR	JUL - DEC 1991, FY 92 Y-T-D ACTUAL	STANDARD (b)	STATUS (c)
1. RIDERSHIP: TOTAL TRIPS	***18,149,590***	***18,034,103***	***EXCEEDED***	***18,409,888***	***17,985,425***	***36,559,478***	***36,353,644***	***EXCEEDED***
AVERAGE WEEKDAY TRIPS	***248,196***	***249,612***	***NOT MET***	***249,494***	***246,504***	***248,861***	***249,478***	***MET***
2. CARS AVAILABLE AT 4 AM: A-CARS	95	***103***	NOT MET	97	***98***	96	***103***	NOT MET
B-CARS	257	268	NOT MET	242	245	250	268	NOT MET
C-CARS	126	84	EXCEEDED	117	98	121	84	EXCEEDED
TOTAL FLEET	478	455	EXCEEDED	456	441	467	455	EXCEEDED
3. PEAK 5-MINUTE DELAYS (Per 100 Train Runs): DELAY EVENTS	3.45	3.00	NOT MET	2.92	3.38	3.18	3.00	NOT MET
DELAYED TRAINS	9.84	8.00	NOT MET	5.73	8.94	7.75	8.00	EXCEEDED
4. PEAK PERIOD/PEAK DIRECTION TRANSBAY CAR THROUGHPUT (%)	***94.3***	***97.5***	***NOT MET***	***98.3***	***97.4***	***96.4***	***97.5***	***NOT MET***
5. LOAD FACTORS: PEAK (Discretionary Trains)	0.93	1.15	NOT MET	0.92	0.99	0.93	1.15	NOT MET
OFFPEAK (All Midday & Night Trains)	0.81	1.00	MET	0.73	0.80	0.77	1.00	MET
6. PASSENGER ON-TIME PERFORMANCE (%): DAILY	***94.1***	***94.0***	***MET***	***96.7***	***95.5***	***95.4***	***94.0***	***EXCEEDED***
PEAK	94.4	(d)	n.a.	97.1	94.3	95.7	(d)	n.a.
7. PASSENGER ACCIDENTS (Annual Rate--Incidents/Million Trips)	11.0	17.7	EXCEEDED	11.5	13.1	11.0	17.7	EXCEEDED
8. AFC PERFORMANCE (Incidents/1,000 Trips)	***0.25***	***0.30***	***EXCEEDED***	***0.26***	***0.24***	***0.26***	***0.30***	***EXCEEDED***
9. STATION EQUIPMENT AVAILABILITY (%): ELEVATORS	99.7	97.0	EXCEEDED	99.7	99.6	99.7	97.0	EXCEEDED
ESCALATORS	97.1	97.0	MET	97.2	98.4	97.2	97.0	MET
10. EXPRESS BUS ON-TIME PERFORMANCE (%)	97.3	95.0	EXCEEDED	97.2	95.3	97.3	95.0	EXCEEDED
11. FAREBOX RATIOS (%): RAIL	***49.1***	***46.7***	***EXCEEDED***	***50.5***	***53.3***	***49.8***	***47.2***	***EXCEEDED***
EXPRESS BUS	16.5	15.5	EXCEEDED	16.2	17.3	16.4	15.6	EXCEEDED
TOTAL OPERATION	47.1	44.8	EXCEEDED	48.3	50.4	47.7	45.3	EXCEEDED
12. SYSTEM OPERATING RATIO (%)	***50.3***	***48.2***	***EXCEEDED***	***51.7***	***54.0***	***51.0***	***48.7***	***EXCEEDED***
13. RAIL COST PER PASSENGER MILE (Cents)	***22.0***	***23.4***	***EXCEEDED***	***21.4***	***21.1***	***21.7***	***23.1***	***EXCEEDED***
14. REVENUE VEHICLE MILES PER EQUIVALENT BART EMPLOYEE	18,803	16,200	EXCEEDED	18,363	17,724	18,581	16,200	EXCEEDED
15. SYSTEM UTILIZATION (%--Passenger Miles/Revenue Seat Mile)	31.1	31.3	NOT MET	31.7	32.5	31.4	31.4	MET
16. EMPLOYEE LOST TIME DUE TO INDUSTRIAL INJURIES (%)	1.94	0.50	NOT MET	0.87	0.66	1.40	0.50	NOT MET
17. PAID SICK LEAVE (%--Sick Hours Paid/Straight Time Hours Paid)	3.42	3.00	NOT MET	3.20	2.94	3.31	3.00	NOT MET
18. DBE PARTICIPATION (%): ALL CONTRACTS	26.1	21.0	EXCEEDED	19.9	30.2	24.8	21.0	EXCEEDED
FEDERALLY ASSISTED CONTRACTS	26.9	21.0	EXCEEDED	63.1	33.7	27.1	21.0	EXCEEDED

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Notes:

(a) Key performance indicators appear in bold/italic type.

(b) Standards identified in the "Current Quarter" and "Year-To-Date" columns may not be equal to the annual standards which represent an average for the entire fiscal year.

(c) A standard is judged to be met if the ratio of actual to desired performance is within 0.5% of a minimum-threshold standard (e.g., Total Trips, Passenger On-Time, etc.). The reciprocal of this calculation is taken where the standard is a maximum threshold (e.g., AFC Performance, Rail Cost Per Passenger Mile, etc.).

(d) There is no specified standard for peak period passenger on-time performance. However, BART Board policy calls for the reporting of actual performance quarterly.

Figure __

STATUS FOR BART'S FY 92 PRODUCTIVITY IMPROVEMENT PROGRAM PROJECTS BASED ON 1990 PERFORMANCE AUDIT & INTER-OPERATOR/SB-602

PROJECT TITLE	PURPOSE	JUNE 1992 STATUS	MTC FINDING
Procurement Manual Revision (1990 Performance Audit Project)	Improve parts availability, reduce improper transactions, and decrease processing time.	New procurement manual was completed in May 1992. Recommendations are being implemented.	In compliance.
Limit Cars Out-Of-Service Awaiting Parts (1990 Performance Audit Project)	Improve parts availability, inventory control, and security. Minimize cars out-of-service awaiting parts.	Cars out-of-service awaiting parts totalled 4 in April 1992, down from 14 before project started.	In compliance.
Absence Tracking and Reporting (1990 Performance Audit Project)	Create a monthly absence tracking report which details all paid and unpaid absences.	Report developed and distributed to all managers monthly.	In compliance.
Expansion of Concession Activities (1990 Performance Audit Project)	Increase concessions revenue by expanding retail activities at stations.	Unanticipated cancellation of concessions contract by Host International as of January 31, 1992. Despite this, concessions revenue is above the Performance Audit base.	Cancellation of contract beyond BART's control.
Monitor and Evaluate Promotional Costs (1990 Performance Audit Project)	Link marketing investments with ridership gains.	Marketing efforts focus on offpeak travel. BART's share of Coliseum gate continues to increase (currently 20%). New resident marketing program initiated.	Effort needs additional study.
Concord Station Transit Center (Inter-Operator Coordination Project)	Improve bus circulation, signs, and passenger information; and add bus zones, sheltered walkways, passenger waiting area.	Design for transit center is to begin in December 1992.	In compliance.
Fruitvale Station Transit Center (Inter-Operator Coordination Project)	Improve bus circulation, signs, and passenger information; and add bus zones, sheltered walkways, passenger waiting area.	Project was suspended in September 1991 pending completion of a planning study by the City of Oakland.	Project suspension was beyond BART's control.
Bay Fair Station Transit Center (Inter-Operator Coordination Project)	Improve bus circulation, signs, and passenger information; and add bus zones, sheltered walkways, passenger waiting area.	Bus transfer facility (addition of 15 bus bays and relocation of kiss-ride area) was completed in December 1991. Walkway canopies, waiting area, and signs portion of project are funded under BART's FY 93 CIP.	In compliance.

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Figure __ (continued)

STATUS FOR BART'S FY 92 PRODUCTIVITY IMPROVEMENT PROGRAM PROJECTS BASED ON 1990 PERFORMANCE AUDIT & INTER-OPERATOR/SB-602

PROJECT TITLE	PURPOSE	JUNE 1992 STATUS	MTC FINDING
Hayward Station Transit Center (Inter-Operator Coordination Project)	Improve bus circulation, signs, and passenger information; and add bus zones, sheltered walkways, passenger waiting area.	This project was unfunded at the time MTC made its finding. This project is funded under BART's FY 93 CIP. Design is slated to begin in November 1992.	BART is responsible for funding. Project not yet delayed.
El Cerrito del Norte Station Transit Center (Inter-Operator Coordination Project)	Improve bus circulation, signs, and passenger information; and add bus zones, sheltered walkways, passenger waiting area.	Construction is to begin in September 1992 on the bus transfer facility with completion in December 1992. Work on the passenger amenities and street widening improvements portion of the project is to begin in January 1993 with completion in July 1993.	BART should have moved faster on the passenger amenities design.
Walnut Creek Station Transit Center (Inter-Operator Coordination Project)	Improve bus circulation, signs, and passenger information; and add bus zones, sheltered walkways, passenger waiting area.	Design for the transit center is to begin in May 1993 with completion of the project by February 1995. [Construction of the transit center is to begin following completion of the garage which is scheduled for completion in May 1994.]	In compliance.
DBE Utilization Study (Inter-Operator Coordination Project)	Meet standard established by Supreme Court rulings by developing information base in assessing DBE programs, opportunities, eligibility, and utilization.	Final report issued in June 1992. Revisions to DBE policies and program to be made following consultant report review.	In compliance.
Premium BARTPlus Ticket (Inter-Operator Coordination Project)	Create a fare instrument to serve higher-fare, longer-distance commuter connections with BART that are not incorporated into the basic BARTPlus Ticket.	The Premium BARTPlus Ticket was first made available to the public for use on February 1, 1992.	In compliance.

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is also given to achieving and maintaining high performance standards for all aspects of BART operations. Programs are implemented and actions routinely performed within specified programs in an effort to provide the best possible travel environment for BART customers and, too, as a marketing tool to win new customers.

First comes safety, a given, not an issue at BART. Operating procedures adhere to stringent industry standards. BART's Safety Department works closely with the California Public Utilities Commission (CPUC) as well as internally with BART operations, maintenance, engineering, and other departments to ensure continued compliance with all prescribed standards and procedures. Activities in FY 92 included the Safety Department's implementation of a program for more effective accident investigation and follow-up, continued safety training for employees which equals or exceeds CPUC certification standards, and implementation of a new comprehensive safety and environmental protection programs. In March 1992, the American Public Transit Association (APTA) conducted a rail safety audit of BART operations in which BART was found to have an above-average safety program. [BART is a voluntary signatory to these triennial audits.] Emergency preparedness exercises are conducted on a regular basis and involve local fire departments, first aid units, and other emergency service providers.

BART's commitment to safety extends to law enforcement, the charge of its 153-member sworn police force. From the control of illegal parking to deterrence and investigation of serious criminal activities, BART Police use the latest techniques to minimize crimes against persons and property on trains, in stations and parking lots, and other BART facilities and property.

Car maintenance is critical to providing service that is both on time and in accordance with scheduled train capacity. Stringent preventative maintenance standards, efficient parts procurement and inventory methods, and procedures and technical expertise developed over the years allow BART to have a sufficient number of operable, clean, and safe vehicles ready for service each day of the year. For the first half of FY 92, BART made an average of 478 vehicles available for service each day by 4 a.m., versus a standard of 455. Recent revisions to BART's Procurement Manual and new procedures implemented this fiscal year in response to the new procedures have helped BART limit out-of-service-vehicles which are awaiting parts to a maximum of four per week. The importance of this is underscored by inclusion of the Procurement Manual update and other efforts to limit cars out of service awaiting parts as two Productivity Improvement Program projects for FY 92 (see Figure __, Status for BART's FY 92 PIP Projects).

Because of the importance of maintaining service per published train schedules, maintenance efforts focus on minimizing incidents which cause train delays. Additional attention to reducing train delays has been implemented this fiscal year. A key objective is to increase the mean-time-between service delays by 23%, from 734 car hours in FY

91 to 900 in FY 92. [The 900 car hour target is equivalent to a train delay every 25,200 car miles, roughly the circumference of the earth at the equator.] Performance for the first half of FY 92 reveals that additional work is needed to achieve this high standard, with the actual level hovering between 700 and 800 car hours each month. The 900 car hour standard has been achieved, with December 1992's level at 950 car hours. BART will continue to make every effort to achieve the 900 hour target every month as modifications and improvements are made to car doors, brakes, and automatic train control systems. Train delay rates in excess of standards (i.e., short of expectations) reflect the shortfall in achieving the mean-time-between service delay target. Through the first half of FY 92, 9.8% of peak period trains experienced a delay of five minutes or more versus a standard of 8.0%. Passenger on-time performance, which measures the percentage of riders completing their trips within five minutes of schedules train run times, continues to be in excess of the 94.0% standard, peak service at 94.4% and 94.1% on a daily basis.

Adequate car availability at targeted levels allows BART to schedule capacity when and where needed. Factors which limit train headways and allowable train lengths are constraints which BART must contend with. Reducing the minimum headway is a key objective of BART's Capacity Expansion Program and represents a formidable challenge which is being addressed. Allowable train lengths, on the other hand, are governed by two factors which are unlikely to change. The first is the CPUC requirement of a minimum three-car train, based on track occupancy detection specifications. BART, therefore, must provide a minimum of a three-car train even though demand may call for fewer cars, during late night hours for example. On the upper end, BART is limited to operating trains each consisting of no more than ten cars, the length of station platforms. Maximum train length combined with minimum allowable headway define the "envelope" of capacity BART can achieve. Breaking out of this envelop by reducing headways is the primary objective of BART's Capacity Expansion Program (discussed in Chapter 3, Planned Service and Programs).

Until shorter headways can be achieved, BART continually monitors passenger demand at peak screenlines and schedules available cars to match the demand, when and where possible (i.e., within the headway and train-length constraints). BART's Data Acquisition System (DAS) and automated train history files are the bases of the Passenger Flow Model (PFM) which is used in the analysis and reporting of train occupancy or load factors. Load factors for discretionary trains, those consists which BART can effectively alter within the three-to-ten-car limitation, have averaged 0.93 during the first half of FY 92, versus a target of 1.15. Since there are very few "discretionary" trains operating during the peaks, this is not the load factor riders typically experience. The load factor for some individual peak hour trains is considerably higher, typically in the range of 1.50 for transbay service and 1.20 on the Richmond-Fremont route. Short of being able to

achieve a 1.15 load factor for all peak trains, until shorter headways are possible and more cars acquired, a secondary objective is to balance the loads among all routes.

Providing high quality service also means keeping vehicles free of litter and graffiti. BART's Car Cleaning Program has been successful in minimizing this and includes over 12,000 routine cleanings per month and exterior car-brightening of the entire fleet of 589 cars every 20 days. A newspaper recycling program was implemented early in 1992 to promote cleanliness of trains and stations. This program, co-sponsored by the San Francisco Chronicle, provides special recycling bins in each station and messages displayed on trains. BART maintenance activities focus on station cleanliness by performing routine cleaning and repair on a regular basis. Under the Station Rehabilitation Program, which began in FY 91, four of the systems 34 stations have been reconditioned by repainting, refinishing, relandscaping, and providing an overall facelift to facilities that are entering their third decade of service. These stations include: Concord, Fruitvale, MacArthur, and North Berkeley.

Efforts to provide the best possible service at high standards while achieving economies of scale have led BART to privatize some functional aspects of its operations where the cost of outside services is less than could be provided by the District. On a contract dollar basis, BART's express bus service (operated by Laidlaw Transit, Inc.) constitutes the largest budget line item under privatization. Selected system cleaning and maintenance activities are other functional areas for which BART has entered into contracts with outside providers for services. Figure __ (BART Privatization, Services Provided Under Contract in FY 92) summarizes the services provided to BART under contract with outside firms.

Goal 2: Deliver User-Friendly Service

The key qualifier in BART's mission, "customer-oriented," dictates delivering the kind of service that's efficient and easy to use. Over the past two years, more emphasis has been given to doing just that. An important part of this effort is BART's participation in the Metropolitan Transportation Commission's (MTC) Regional Transit Coordination Program (in compliance with SB-602) which seeks to improve the availability of transit information, coordination of fares, and simplify inter-operator transfers. Most of these activities are presented under goal 7 which addresses regional service integration. Without doubt, however, providing user-friendly BART service means reducing or eliminating the barriers which, if left unattended, lead to decisions to not use the system.

To help promote user-friendly service, new standards have been set and new training programs begun in FY 92. How BART can best serve its riders by improving customer relations is the key focus. Station agents, BART Police, other front-line staff, and behind-

Figure __

BART PRIVATIZATION
SERVICES PROVIDED UNDER CONTRACT
FY 1992 BUDGET

EXPRESS BUS SERVICE	$6,608,000
TRACTION	995,781
BART SHUTTLE BUS SERVICE	595,000
SEAT CLEANING	333,440
WHEEL RELINING	263,000
WEED ABATEMENT	144,000
GRAFFITI REMOVAL	138,600
ESCALATOR MAINTENANCE	133,272
PARKING LOT SWEEPING	111,240
ROLLER BEARINGS	110,000
BRAKE LININGS	100,000
WINDOW WASHING	42,000
PIGEON CONTROL	39,750
COMPRESSOR CRANKSHAFTS	36,000
WHEEL REMOVAL	18,000
PEST CONTROL	15,260
TOTAL	**$9,683,343**

the-scene personnel as well receive training on customer interaction, confrontation avoidance, and other methods to help staff respond in a positive and helpful way to customer needs in a variety of situations.

When riders need information or other form of assistance, recognition of who to turn to is not always readily apparent. In response to this concern, BART has set a new standard which specifies that 99% of all station agents be in uniform and wear a nametag. Equally as important, is that stations be adequately staffed. An additional standard was established in FY 92 which specifies that 96% of all station agent booths be staffed, or if in the case of a brief absence, the booth must have information displayed which identifies when an agent is expected to return.

The importance of having information readily available for customers use regarding BART train and express bus service schedules, fares, transfers, as well as how to connect with other transit lines has led to many improvements over the years. Prime examples of this are the large train schedule display boards on the train platform level of each station and the information kiosks on station concourse levels. Numerous brochures are printed and updated on a regular basis which deal with how to use BART, BART fares, destinations and important points of interest the system serves, where discount tickets may be purchased, etc. Most of these brochures are also printed in Cantonese, Spanish, and Tagalog. All language versions are available in special bins located adjacent to or near station agent booths. BART is currently developing a standard for maintaining brochure stock in these displays. An additional information item is BART's "Dear Rider" letter which is aimed at communicating current BART related events, including informing riders of a new train schedule, special service (i.e., Bay-to-Breakers), or on rare occasion, providing an explanation as to why "yesterday's commute was so bad." These letters are normally produced once each month and are made available at entry/exit gates at all stations.

BART is particularly proud of its efforts to provide fully accessible transit to persons with disabilities. From an early point in its history, BART has made every effort to accommodate the needs of elderly and disabled persons. Design standards and features of stations and vehicles are evidence of this concern for providing a safe and barrier-free travel environment. Stringent performance standards and preventative maintenance for station elevators and escalators helps keep this vital equipment in operable, safe condition for all BART riders, but is most critical in making BART a fully accessible system. Elevator availability is typically above 99% and for the first half of FY 92 averaged 99.7%. By comparison, escalator performance for the first half of FY 92 averaged 97.2%.

The BART Accessibility Task Force meets regularly with BART staff for the purpose of identifying projects which may further enhance system accessibility. A key product of the

Task Force's efforts in the past two years has been the formulation of a Multi-Year Master Plan which identifies specific projects and improvements. During FY 92, a major effort went into reviewing and formulating policy in response to the Americans with Disabilities Act (ADA) of 1990. One policy provision of ADA is that fixed-route transit systems must develop a plan to provide complementary paratransit service even if the system is fully accessible. BART's Complementary Paratransit Service Plan was finalized in January 1992 and includes a five-year timetable and budget. [Additional details of the plan are present in Chapter 3, Planned Service and Programs.]

***Goal 3*: Empower Employees To Function As Owners Of BART**

The quality of service as experienced by BART's customers is a direct reflection of the people who deliver it: BART's 2,600+ employees. For this reason, carrying out programs to promote professional development and taking responsible actions are an important part of how BART nurtures its human resources, and at the same time, improves the quality of service. Specific standards have been developed for training managers, supervisors, and front-line employees. Due recognition is given with regard to employee performance, suggestions, service history, and attendance records.

In response one of the 1990 Performance Audit recommendations regarding attendance, BART enhanced its capabilities in the area of tracking both for paid and unpaid absences. The development of BART's *Monthly Absence Tracking Report* was included as a PIP project for FY 92 (see Figure __, Status for BART's FY 92 PIP Projects). The report was first made available in December 1991 and will be used to improve employee scheduling and staffing requirements, as well as to gain a better understanding of the level of off-duty time and how it is charged. All paid and unpaid absence hours are reported by employee, with summaries produced by cost center, department, executive office, and District totals. Managers receive on a monthly basis portions of the report which are applicable to their cost center(s). Efforts to motivate and empower employees are supported by programs discussed under goal 4, which follows.

***Goal 4*: Provide An Environment Free Of Impediments To Opportunities For Employees and Disadvantaged Business Enterprises, One Which Encourages Cooperation And Develops A Highly Motivated Organizational Team And Staff**

Related to empowering employees are programs to promote career development within the organization, and others to provide a level of disadvantaged business enterprise (DBE) involvement coincident with BART's affirmative action plan and objectives.

With regard to internal career development, BART conducts on a quarterly basis career seminars for employees. The purpose of these seminars is to enhance employee knowledge of opportunities at BART, as well as communicate what training resources and programs are available and to provide individual career counseling. Other programs, including BART's Employee Assistance Program and Return-to-Work Program, provide employees with resources for addressing on-the-job and personal problems which may impact job performance.

BART's Affirmative Action Program is guided by policies and specific targets with regard to representation of women and minorities within fifteen job categories. BART's engineering intern program was implemented this fiscal year to help promote upward mobility of women and minorities. An update of BART's Affirmative Action Plan for achieving the current representation targets, and for identifying future targets, is being developed using 1990 U. S. Census Bureau data. This document is expected to be available by the fall 1992.

An important part of BART's Affirmative Action Program is to provide opportunities for women and minority owned business enterprise to participate in District contracts. BART has had a long-standing objective to encourage efforts to achieve 21% minority business enterprise participation for all District contracts which have been determined to have disadvantaged business enterprise (DBE) opportunities. For the first half of FY 92, actual DBE participation on a contract-dollar basis was 24.8% for all District contracts, and 27.1% for federally assisted contracts. BART is also the lead agency for the Regional DBE Utilization Study, an effort which has been identified as a PIP projects for FY 92. The focus of this project is to develop an information base for participating agencies use in assessing DBE programs, federally funded contracting opportunities, eligible DBEs, and results of DBE utilization. Additional details of this effort are presented in Figure __ (Status for BART's FY 92 PIP Projects).

A related activity with regard to Affirmative Action is BART's Title VI program, in compliance with Title VI of the United States Civil Rights Act of 1964. The objectives of this program are to ensure that Federal Transportation Administration (FTA) assisted benefits and services are made available and are equitably distributed without regard to race, color, or national origin. The most recent Title VI assessment submitted to FTA by BART was in September 1989. The next update is expected to be completed and forwarded to FTA in August 1992. Subsequent updates are planned every three years thereafter.

Goal 5: **Develop BART Services And Facilities To Expand District Markets And Capture New Revenue Sources**

BART's marketing efforts have traditionally focused on offpeak riders since it is during this service period that additional capacity can be made available to accommodate substantially higher demand. BART's FY 92 Productivity Improvement Program project to *Monitor and Evaluate Promotional Costs* attempts to link promotional dollars spent to revenue gained as a result of riders who use the system because of an advertisement they heard or read (for additional details, see Figure __, Status for BART's FY 92 PIP Projects).

The use of print and broadcast media for advertising BART services has been augmented by cooperative marketing efforts with event sponsors. This has been particularly successful for large sporting events held at the Oakland Coliseum including the Oakland A's and Warriors. BART's share of the attendance gate has continued to increase over the years, and is now at about 20% (i.e., 20% of all attendees use BART to go to an event at the Coliseum). Special train service, such as to the annual "Bay-to-Breakers" race in San Francisco, and "Shoppers' Specials" during the holiday season, have been developed and marketed to promote increased offpeak system use and additional revenue. [The farebox ratio for the 1991 Bay-to-Breakers service was 149%.] BART marketing efforts have more recently focused on a program to get new residents to the Bay Area to try BART, and hopefully use the system on a regular basis.

Improving services and tapping new revenue sources is extended to BART's express bus system. Since privatization of this part of BART operations in 1991, and route streamlining/schedule coordination with rail, the farebox ratio for express bus service has continued to rise. Whereas the express bus farebox ratio stood at 10-12% a few years ago, the current level is in excess of 16% (additional details with regard to BART's express bus service follow under goal 7, below).

Improving rail service, either by providing more frequent trains or by extending lines to areas not currently served, strikes at the heart of BART's Ten Year Plan and Capital Improvement Program. Headway constraints and how best to overcome them have been the focal point of BART's Capacity Expansion Program for over a decade. The complexity and magnitude of the projects which are needed to provide more frequent service has required a major effort of both time and resources. The addition of the third track through downtown Oakland (the KE track), the Daly City tailtrack and maintenance yard, the 150 new C-cars, and most recently, the March 1992 signing of a purchase agreement with Morrison-Knudson for 80 more cars (with an option to buy up to 170 more cars) are products of this program. With much work left to complete, this effort continues with the principle objective of putting key system components in place which will enable the current minimum scheduled headway of 180 seconds to be reduced to at least 135 seconds, and possibly even further to 120 seconds. Equally as important, is the capability of the new system components to support 12 new stations and 33 miles of extensions which will be phased into operations between mid 1995 and 2002.

Capacity expansion and extensions activities have increasingly become more co-dependent as the time horizon for turning on new service quickly approaches, and the details of both efforts must be worked out using a systems approach. Ground-breaking ceremonies which were held in October 1991 for the extensions to East Dublin and to North Concord (as part of the phase I extension to West Pittsburg) underscore this need. Efforts related the implementation of extensions beyond phase I have also progressed. This includes the release of the draft preliminary engineering report for the West Contra Costa County extension and working closely with the Port of Oakland with regard to a future guideway transit connector to Oakland Airport.

As involved as BART is with efforts to increase capacity and extend the system, this has not overshadowed the need for implementing improvements to other aspects of BART service. System access is a prime example, where providing sufficient parking and coordinating services with other transit providers is basic to expanding and tapping new markets. Fiscal year 1992 began with plans to add 1,200 new parking spaces to BART's July 1, 1991 inventory of almost 29,600 parking spaces at stations. The paving of the Saint Charles Street lot at Daly City Station (which opened in January 1992) added 291 spaces. This in addition to the opening of the Pleasant Hill parking structure (1,200 spaces) by the end of FY 92, will exceed the target. BART's access program is by no means limited to parking. Coordination of transit services is a major focus of attention and is highlighted in BART's FY 92 Productivity Improvement Program. The details of this are presented under goal 7 which addresses transit integration.

Other BART programs focus on efforts to capture new sources of revenue. This includes the sale of excess land BART owns (which provided for just over one million dollars to BART's capital budget in FY 92), leasing of space in stations for concessions, right-of-way leasing for fiber optics facilities, and ground leases for joint development projects. *Expansion of Concessions Activities* is one of BART's FY 92 PIP projects which was identified as the result of the 1990 Performance Audit. While the cancellation of the concessions contract (effective January 31, 1992) with Host International was unanticipated, in FY 92 BART exceeded the Performance Audit's target of increasing concession's revenue by 10% over FY 90. The actual increase over FY 90 was 44% (for additional details see Figure __, Status for BART's FY 92 PIP Projects).

Goal 6: Secure And Manage Funds Necessary To Maintain And Expand The System And Operate BART According To Fiscally Sound Business Practices

Increased competition for limited local, state, and federal funding has resulted in BART having to take a more aggressive role in advocating and securing resources for implementing needed capital improvements. Rehabilitation of the 20-year old basic system alone is estimated to cost $6878 million. This is money that will be needed over

the next ten years to keep the *current system* in top condition. Implementation of all the phase I extensions pushes BART's funding needs up an additional $2.0 billion that will be required over the next ten years. The process for identifying projects, developing implementation schedules based on priorities, and project funding is drives BART's capital program. A companion document to this Ten Year Plan, BART's 1992 Capital Improvement Program (CIP), discusses this process and identifies the projects and funding required for the delivery of service improvements through the fiscal year 2002 as described in this document.

BART's Department of Government & Community Relations oversees the District's efforts with regard to legislative advocacy and procurement of capital program funding. During FY 92, GC&R staff have worked closely with the California Transit Association and MTC to develop legislation for streamlining the administrative process for state funding. At the federal level, efforts have included the American Public Transit Association's (APTA) legislative conference and meetings with key legislators regarding transit funding. This is particularly timely given the landmark Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 which provides increased Congressional authorizations for transit funding. BART is improving both how its funding needs are identified and communicated by strengthening the processes under which its capital program and operating budgets are formulated. This includes educating managers about federal, state, and local grant requirements and providing them with customized financial reports; improving the CIP's project descriptions, justifications, and funding/cash flow schedules and sources; and promoting consistency and continuity in the use of information technology for reporting project development and implementation status. BART's Project Tracking System has been cited as an important step toward improving how the implementation status of a complex capital program can be accurately tracked. [This project was included in BART's Productivity Improvement Program for FY 91.]

To ensure that BART utilizes the funds it does receive to the public's best advantage is a key function of the District's Department of Internal Audit, which was created last fiscal year. During FY 92, this department undertook audits of all major BART financial activities and transactions, as well as conducted audits with respect to contracts, performance, fraud, waste, and abuse.

Goal 7: Take The Leadership Role In Integrating Various Features Of Regional Transportation Systems In Policy, Finance, And Operations

With just over 71 miles of double-mainline track currently and 33 more to be added in the next ten years, BART provides a common thread linking over a dozen local and long-distance ground transportation providers. With future connections to both San Francisco and Oakland International Airports, this number quickly multiplies by adding all the airlines

serving these two facilities. BART's role in the region, by its very nature, is to join places by providing quality, car-free accessibility. BART, however, cannot serve all places directly and is, therefore, only as strong as its ties to where people come from and want to go. *Accessibility* is the key, regardless of mode. Parking is important, without doubt. However, for the region to maximize its investment in BART (as well as for its investment in all forms of public transit) and to achieve clean air standards, it is of a paramount concern that the Bay Area's transit systems function as an integrated whole to promote increased ridership and reduced automobile dependence.

The importance of this has led BART to implement projects which make using transit easier, whether in regard to coordinating schedules and fares or providing or better information for transit connections. The Inter-Operator Coordination/SB-602 section of BART's FY 92 Productivity Improvement Program (PIP) contains seven projects for improving transit access to BART. Six of these are transit centers for the following stations: Bay Fair, Concord, El Cerrito del Norte, Fruitvale, Hayward, and Walnut Creek. The transit center projects are all similar in scope in that each calls for increasing the number of bus loading zones, providing safe and fast circulation of buses, adding sheltered walkways, and improving signs and availability of information. [Refer to Figure __, Status for BART's FY 92 PIP Projects.]

The remaining SB-602 PIP project is the Premium BARTPlus Ticket, which was implemented in February 1992. This is a bi-monthly single fare instrument which permits unlimited riding on participating transit systems which connect with BART, and contains BART stored value as well as bonus ride features (refer to BART Fare Components and Ticket Prices for additional details). Premium BARTPlus is the latest multi-operator/single-fare instrument to be implemented, and includes local and longer-distance transit services in the Bay Area. Other multi-operator tickets which were implemented prior to Premium BARTPlus include the monthly BART/MUNI Fast Pass (available since April 1983) and the bi-monthly BARTPlus ticket (available since April 1991). Approximately 13% of weekday travel on BART is made with the BART/MUNI Fast Pass. An additional 5% of weekday trips are associated with the BARTPlus. Less than 0.1% of all weekday trips are made with the Premium BARTPlus owing to the relative newness of this fare instrument and its much more limited market relative to the lower cost BARTPlus. Figure ___ (Ridership Summary For Inter-Operator Fare Instruments, BART/MUNI Fast Pass and BARTPlus) summarizes the ridership data for both the BART/MUNI Fast Pass and BARTPlus.

BART has been diligently working to implement TransLink which will be a new "universal" fare instrument valid on participating Bay Area transit systems. TransLink, which will have magnetically encoded fare information similar to BART tickets, will initially be placed in service by January 1993 on BART, BART express buses, and buses operated by Central Contra Costa Transit Authority (CCCTA). Expansion of this fare instrument will

FIGURE __

RIDERSHIP SUMMARY

FOR INTER-OPERATOR

FARE INSTRUMENTS

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Central Contra Costa Transit Authority (CCCTA). Expansion of this fare instrument will be dependent upon its success on this limited basis, and interest on the part of other Bay Area operators to participate in the program.

BART is also involved in the coordination and integration of transportation services in the Bay Area as evidence by the District's participation in emergency and energy contingency planning (including interim and future efforts to improve and or replace damaged/destroyed freeways due to the October 1989 Loma Prieta Earthquake--with Caltrans as lead agency), and State mandated county congestion management planning (with the individual counties as lead agency).

***Goal 8*: Build Constituencies At All Levels Of Government To Support The BART Organization And Its Programs**

As a publicly funded agency, one whose Board of Directors are locally elected, BART is well positioned to receive and respond to public concerns regarding the current state and future of the system.

In addition to communication via Board-related processes, BART has implemented important programs aimed at both educating and promoting dialogue between the organization and outside concerns be they individuals, special interest and professional groups, small businesses, or large corporations. The BART Speaker Bureau Program was established in 1990 to respond to requests for information, usually in the form of presentations before special interest groups. Specific interests and topics are identified for each individual request and a knowledgeable BART staff member, drawn from a pool of speakers, is selected for addressing the group. This program is instrumental in communicating BART initiatives and promoting support for the system. Augmenting the Speaker Bureau is a program which offers special tours of the system. Depending upon particular interest, this includes inspection of BART Central Control, maintenance shops, and other key system facilities.

With extensions being the most often requested topic, BART has opened field offices in both Pleasanton and Pittsburg for the purpose of establishing a source of information within the local communities where extensions are currently under construction.

As stated under goal 6 (secure and manage funds for maintenance and expansion), BART's Government and Community Relations Department keeps abreast of legislative matters and formulates plans for advocating support for BART initiatives.

EVALUATION OF RIDERSHIP

BART ridership grew at a modest pace over the past year which was marked by a net loss of jobs in the region due to the recession. Out migration of employers from the regional core, downtown San Francisco in particular, to suburban areas also continued. Despite the recession and job shifts, total annual trips on the BART are 2.2% higher for the twelve months ending March 1992 versus the same period ending in 1991. On the same twelve-month basis, average weekday travel was up 1.4% from 246,615 trips to 249,555; system use on Saturdays went up 0.9% from an average of 108,765 to 108,901 trips, with Sundays' average increasing a substantial 6.6% from 64,139 to 69,213 trips.

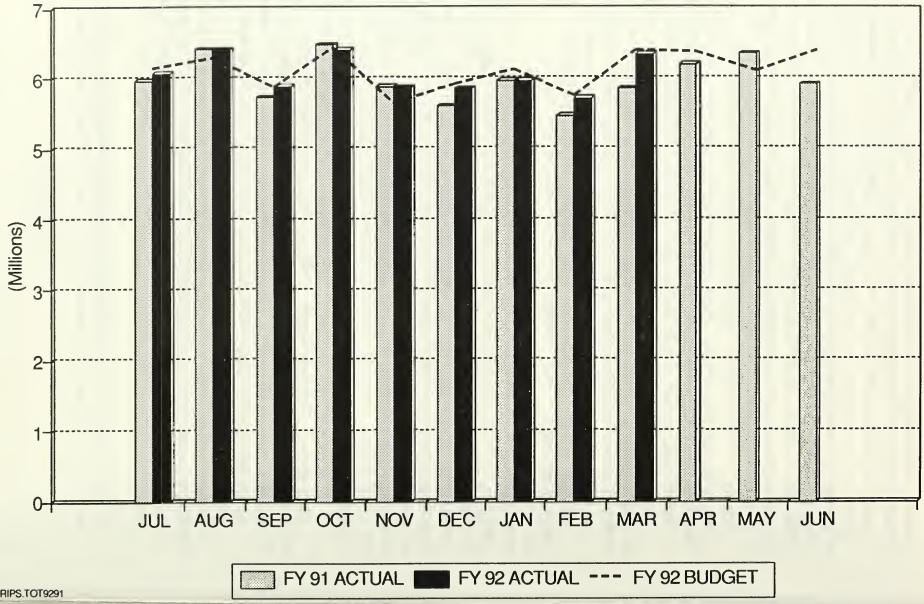
Figure__ (Total Monthly Trips) identifies total monthly BART ridership for FY 91 and the first nine months of FY 92. Also identified is the budgeted ridership for FY 92. As shown, total monthly ridership this fiscal year is roughly at or above respective months last year. March 1992 shows a substantial gain of 8.8% over March 1991. Contributing to this increase was BART travel to the Oakland Coliseum for the World Figure Skating Championships which were held over a five-day period in March 1992. For this event, BART provided extra capacity by lengthening scheduled trains and placing additional trains in service. BART is virtually equalling its ridership forecast for total trips for FY 92 through March (54,600,845 trips actual versus 54,638,345 forecast, or 99.9% achievement).

Showing a similar trend to rail ridership is that for total trips on BART express buses. Figure __ (Monthly Express Bus Trips) identifies the monthly ridership for this service. In all months except December, the relationship of FY 91 to FY 92 levels mirrors that for rail. For December, this is reversed. Rail showed a gain, due primarily to holiday shopping and the extra train service provided. December 1991 express bus ridership, however, was substantially below December 1990's. For the first nine months of FY 92 express bus ridership is 1.4 % above the level for the same period one year earlier.

Figure __ (Average Weekday Trips) identifies average weekday rail ridership by month for FY 91 and FY 92 and the FY 92 forecast. Similar trends are evident as for total trips, noted above. Through March 1992, weekday ridership averaged 249,489 trips versus a forecast of 250,927 (98.4% achievement). The split between peak and offpeak system use is shown in Figure ___ (Average Weekday Peak Period Ridership) and Figure __ (Average Weekday Offpeak Ridership). Of note are the offpeak ridership gains made in December 1991 and March 1992 relative to the same months one year earlier. Increased marketing of BART's "Shoppers' Specials" trains provided on the five Sundays between Thanksgiving and Christmas (with direct transbay service on three routes versus regular Sunday service of one transbay route) contributed to this gain. Stepped up marketing efforts which have focused on Oakland Coliseum events are key factors in these gains.

Through March 1992 BART ridership for the four-hour peak period (two hours during the morning commute plus the two hours in the afternoon) averaged 119,105 trips, or 47.7

TOTAL MONTHLY TRIPS
FY 92 vs FY 91



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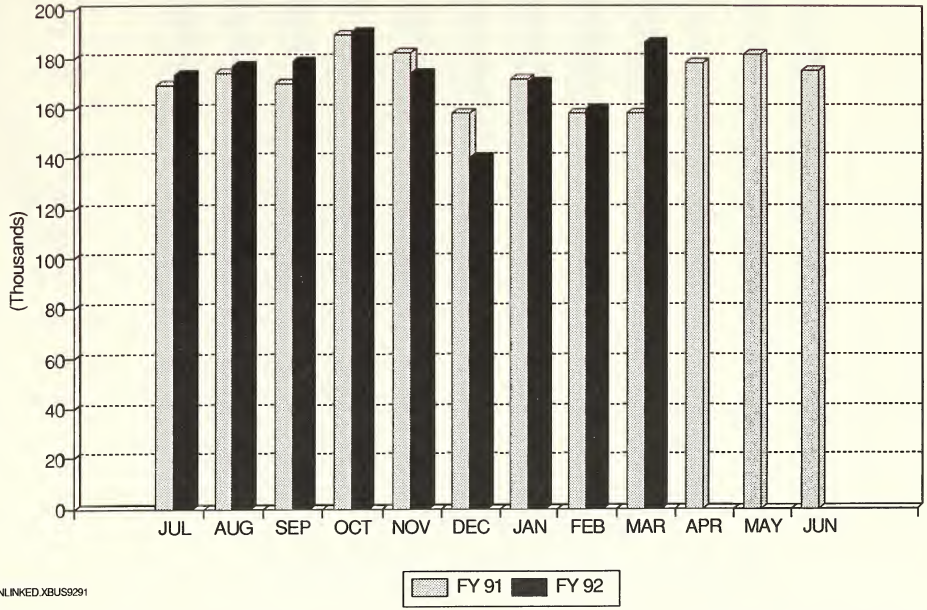
MONTHLY EXPRESS BUS TRIPS
FY 92 vs FY 91



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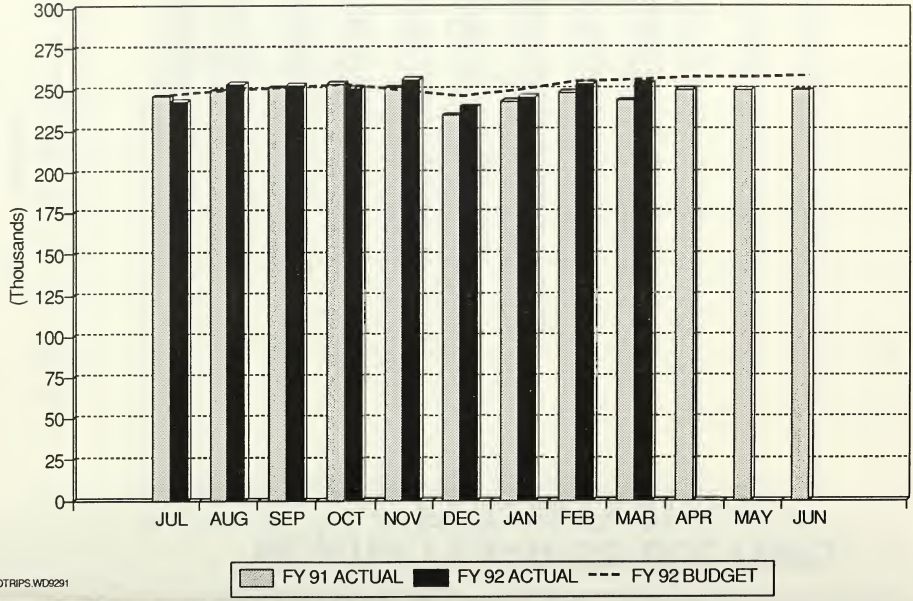
AVERAGE WEEKDAY TRIPS
FY 92 vs FY 91



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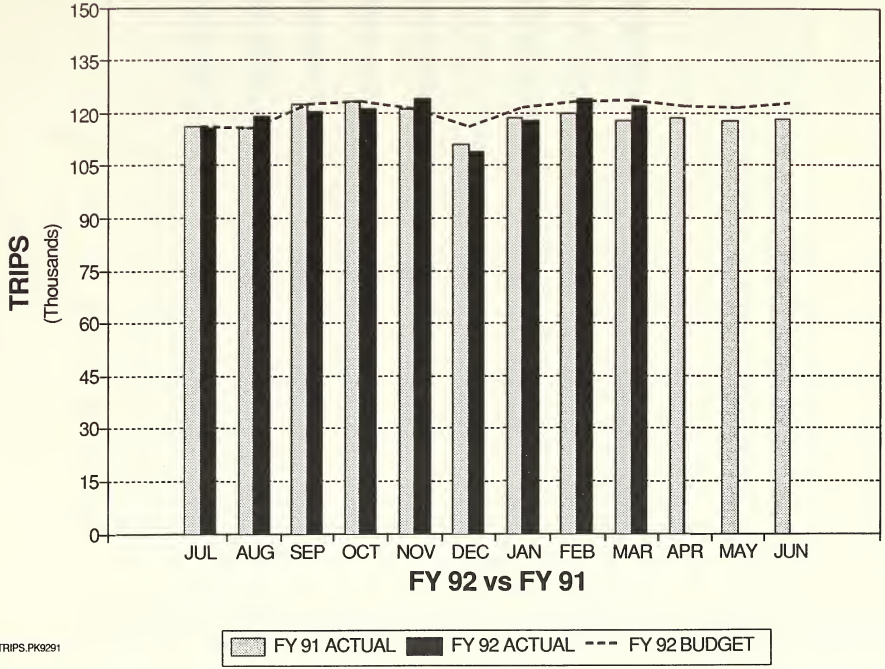
AVERAGE WEEKDAY PEAK PERIOD RIDERSHIP



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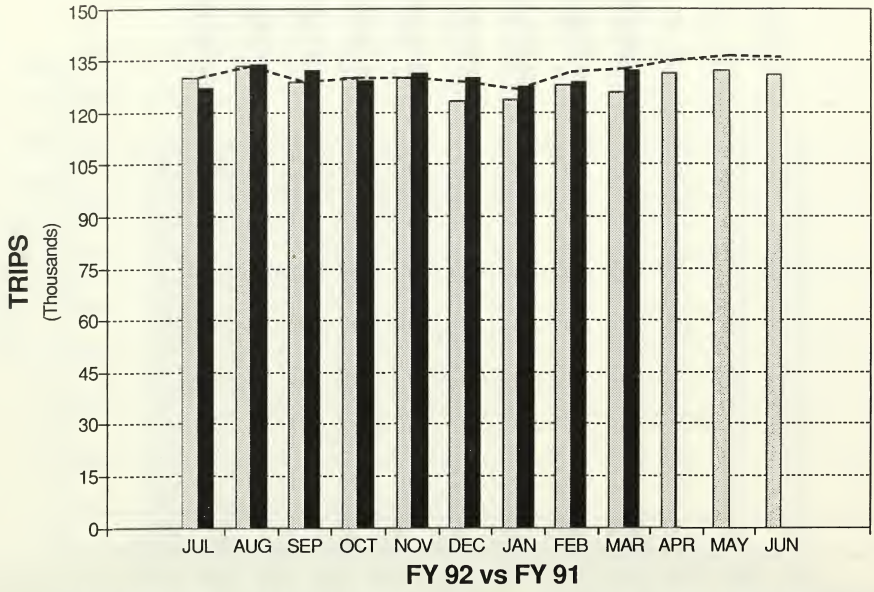
AVERAGE WEEKDAY OFFPEAK RIDERSHIP



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% of typical weekday ridership. Offpeak ridership on weekdays averaged 130,385 trips, or 52.3% of average weekday system use. Compared to forecast, peak and offpeak BART ridership through March 1992 is 99.0 % and 100.0 % of the fiscal year-to-date forecast, respectively.

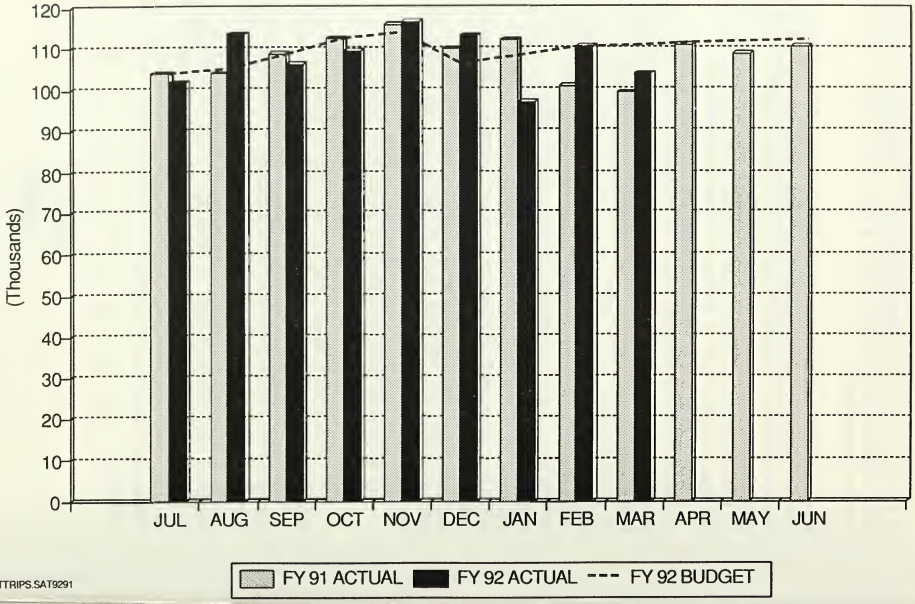
Weekend BART use continues to make substantial gains, particularly for Sunday travel (refer to Figure __, Average Saturday Trips; and Figure __, Average Sunday Trips). Marketing efforts promoting offpeak travel and special service for major Bay Area events have contributed to this favorable trend. Saturday ridership for the first nine months of FY 92 averaged 108,491 trips, or 99.5% of a forecast of 109,062. Sunday's year-to-date average is 66,639, or 3.1% above a forecast of 64,654 trips.

Of special note are the gains made with respect to MUNI Fast Pass travel on BART. Despite a 7.1% increase in the Fast Pass price, from $28 to $30 effective August 1991, BART trips made with the Fast Pass continued to increase. This is seen in Figure _ (Average Weekday BART Ridership, BART/MUNI Fast Pass Trips), Figure __ (Average Saturday BART Ridership, BART/MUNI Fast Pass Trips), and Figure _ (Average Sunday BART Ridership, BART/MUNI Fast Pass Trips) which summarize Fast Pass ridership data for total trips, average weekday, Saturday, and Sunday. It should also be noted that MUNI implemented a 13.3% increase for its single payment cash fare, which went from a base of 75¢ to 85¢, also beginning in August 1991. Experience has shown that the use of the Fast Pass on BART is directly related to the disparity between the MUNI's base fare and the price of the Fast Pass. MUNI fare increases which favor a shift to increased Fast Pass purchases and use (because the Fast Pass is made to be an increasingly better buy), result in higher levels of intra-San Francisco BART ridership with this fare instrument.

EVALUATION OF DEMAND VERSUS CAPACITY

One of BART's basic service objectives is to provide adequate capacity such that the ratio of onboard passengers to seats (i.e., load factor) averages 1.15 during peak periods. Efforts to achieve this objective are often precluded by headway constraints, which dictate maximum train frequencies, in conjunction with BART's ten-car maximum allowable train length. The net result is additional capacity cannot be provided, even when cars are available, until headways can be reduced. This is precisely the objective of BART's Capacity Expansion Program. In advance of implementing higher frequency and capacity service, trains are sized to achieve the 1.15 load factor objective for discretionary trains. These are trains that are less than ten-cars long and can be lengthened as demand warrants.

AVERAGE SATURDAY TRIPS
FY 92 vs FY 91



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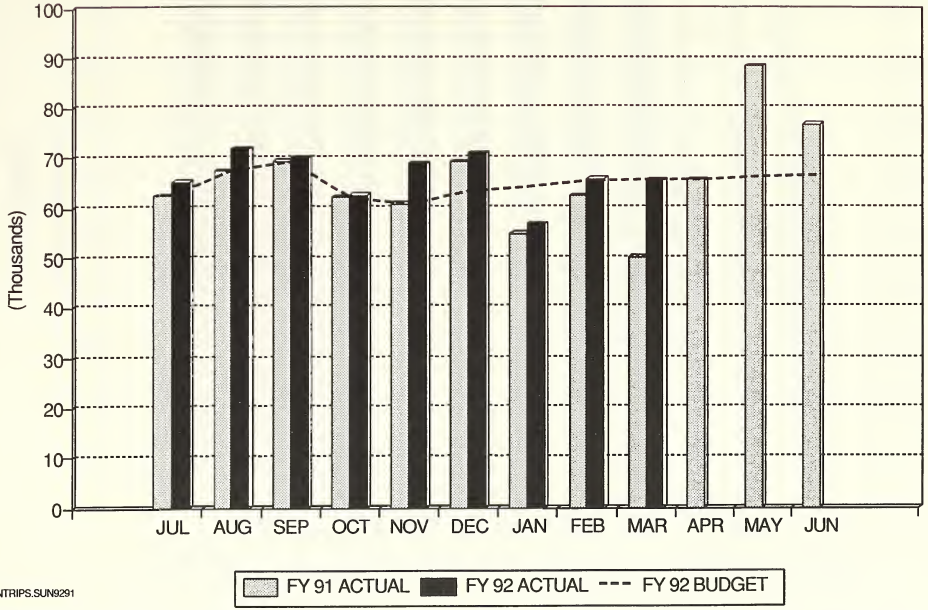
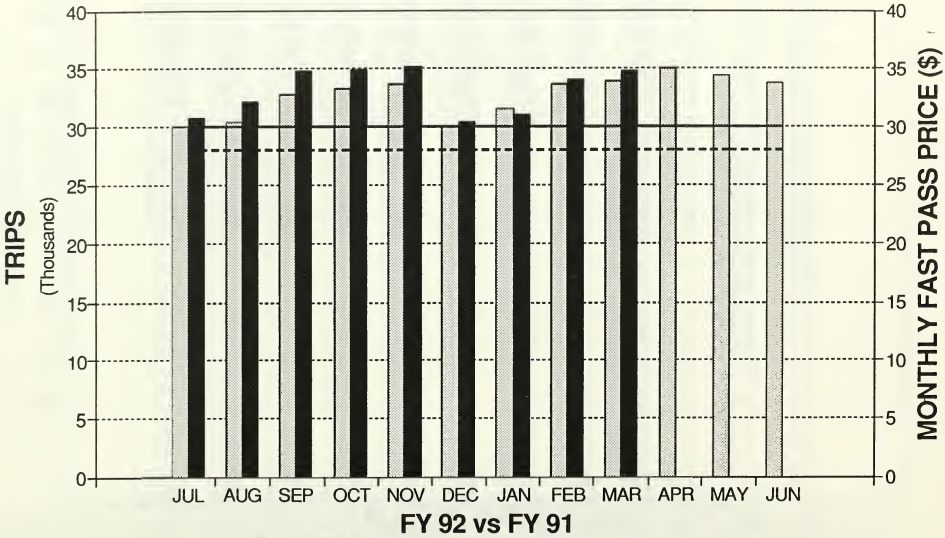
AVERAGE SUNDAY TRIPS
FY 92 vs FY 91



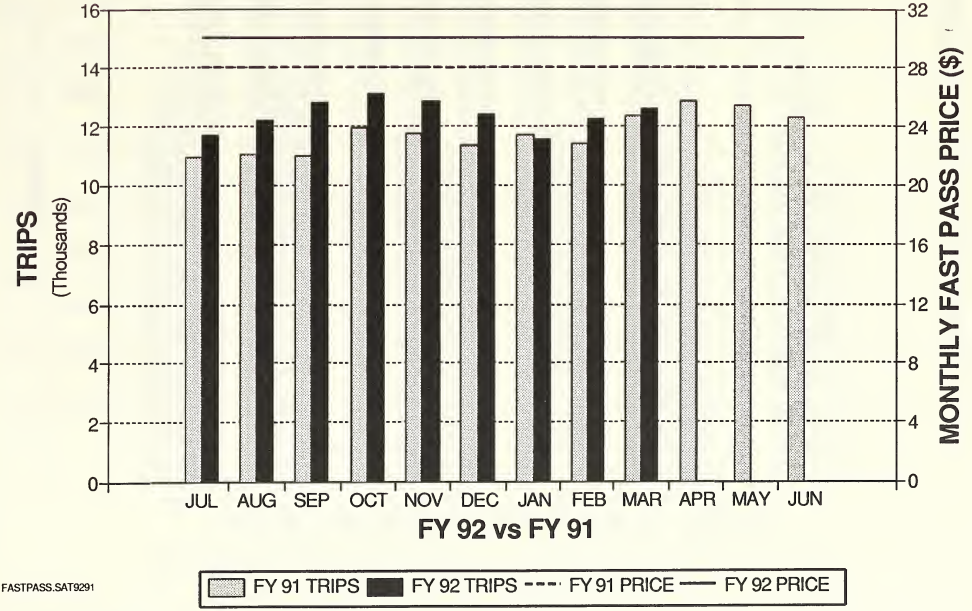
SUNTRIPS.SUN9291

AVERAGE WEEKDAY BART RIDERSHIP
BART/MUNI FAST PASS TRIPS



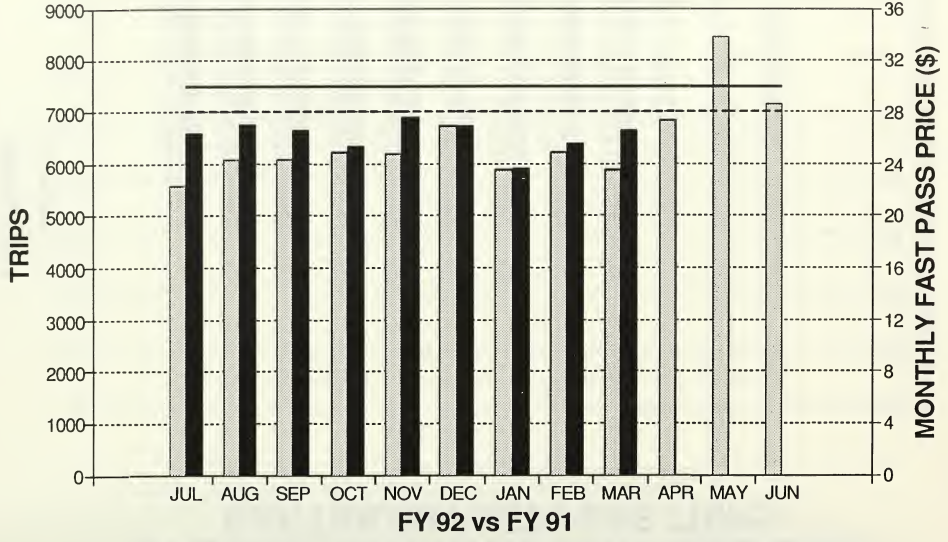
FASTPASS:WD9291

AVERAGE SATURDAY BART RIDERSHIP
BART/MUNI FAST PASS TRIPS



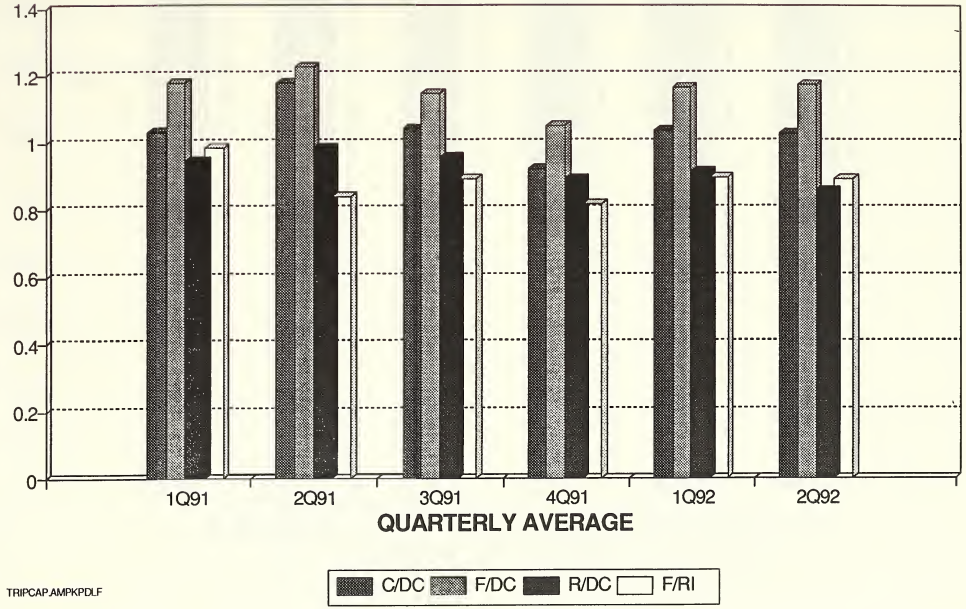
FASTPASS.SAT9291

AVERAGE SUNDAY BART RIDERSHIP
BART/MUNI FAST PASS TRIPS



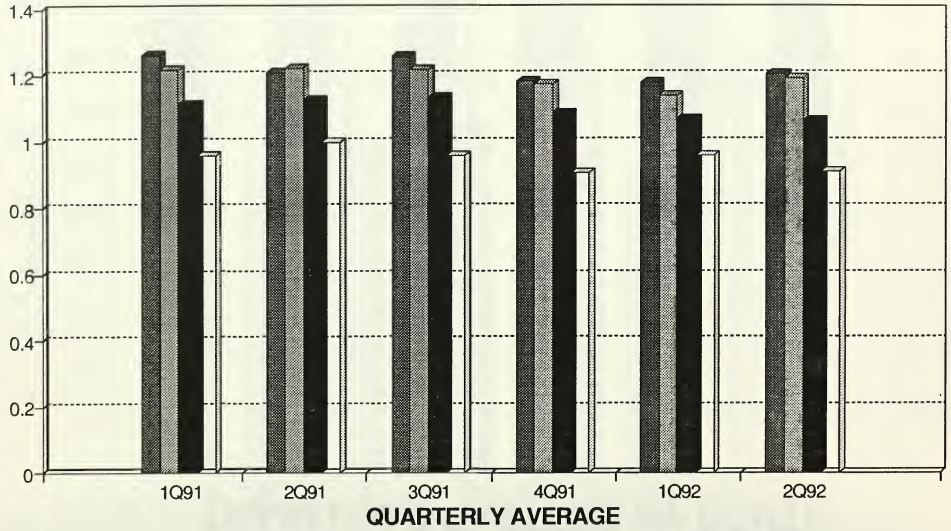
FASTPASS.SUN9291

MORNING PEAK PERIOD
TRAIN LOAD FACTORS BY ROUTE



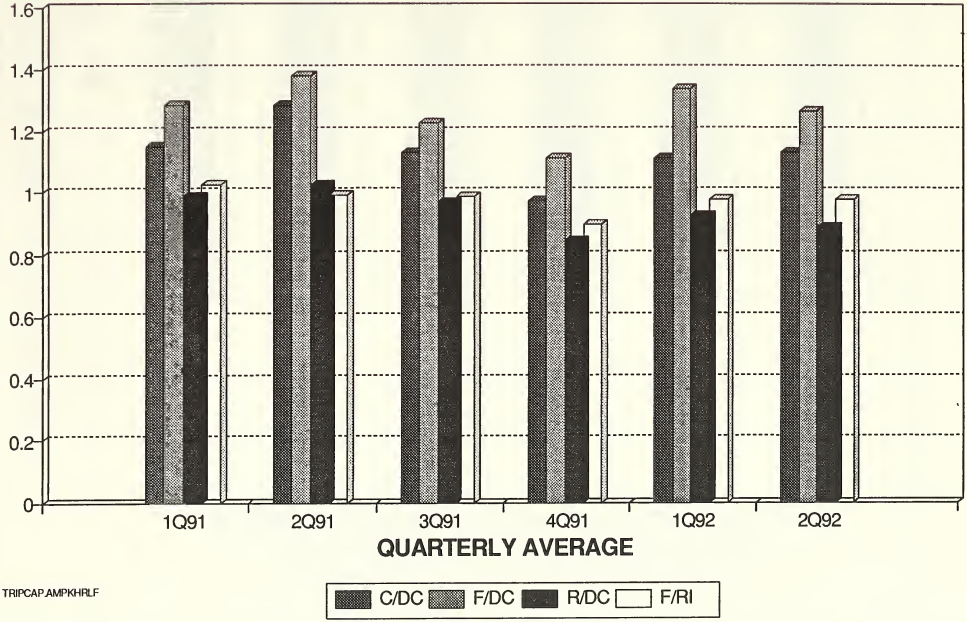
TRIPCAP.AMPKPDLF

AFTERNOON PEAK PERIOD
TRAIN LOAD FACTORS BY ROUTE



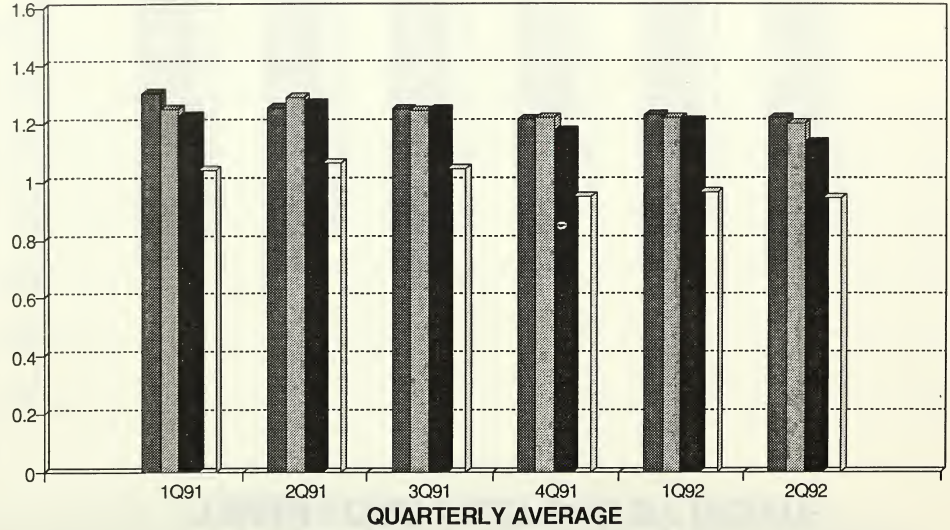
TRIPCAP PMPKPDLF

MORNING PEAK HOUR
TRAIN LOAD FACTORS BY ROUTE



TRIPCAP.AMPKHRLF

AFTERNOON PEAK HOUR
TRAIN LOAD FACTORS BY ROUTE



TRIPCAP.PMPKHRLF

MORNING PEAK PERIOD
LOAD FACTORS FOR ALL TRAINS *
OCTOBER - DECEMBER 1991

TRANSBAY FROM WEST OAKLAND

PERIOD/ROUTE / TIME INTERVAL		TRAINS	CARS	SEATS	PASS'GRS	LOAD FACTOR
PEAK HOUR:						
C/DC	S**	8.0	80.0	5,760		
(0708-0807)	A**	8.0	79.6	5,733	6,499	1.13
	%**	100.0%	99.5%	99.5%		
F/DC	S	5.0	50.0	3,600		
(0708-0807)	A	5.0	50.0	3,600	4,569	1.27
	%	100.0%	100.0%	100.0%		
R/DC	S	4.0	40.0	2,880		
(0708-0807)	A	3.9	38.8	2,790	2,479	0.89
	%	97.5%	96.9%	96.9%		
TOTAL TBAY	S	17.0	170.0	12,240		
(0708-0807)	A	16.9	168.4	12,123	13,547	1.12
	%	99.4%	99.0%	99.0%		
BALANCE OF PEAK TRAIN CYCLE						
C/DC	S	10.0	96.0	6,912		
(0632-0707)	A	10.0	95.4	6,867	6,461	0.94
(0808-0859)	%	100.0%	99.3%	99.3%		
F/DC	S	6.0	58.0	4,176		
(0632-0707)	A	6.0	57.8	4,158	4,532	1.09
(0808-0859)	%	100.0%	99.6%	99.6%		
R/DC	S	6.0	54.0	3,888		
(0632-0707)	A	6.1	54.6	3,933	3,288	0.84
(0808-0859)	%	101.7%	101.2%	101.2%		
TOTAL TBAY	S	22.0	208.0	14,976		
(0632-0707)	A	22.1	207.8	14,958	14,281	0.95
(0808-0859)	%	100.5%	99.9%	99.9%		
TOTAL PEAK PERIOD TRAIN CYCLE						
C/DC	S	18.0	176.0	12,672		
(0632-0859)	A	18.0	175.0	12,600	12,960	1.03
	%	100.0%	99.4%	99.4%		
F/DC	S	11.0	108.0	7,776		
(0632-0859)	A	11.0	107.8	7,758	9,101	1.17
	%	100.0%	99.8%	99.8%		
R/DC	S	10.0	94.0	6,768		
(0632-0859)	A	10.0	93.4	6,723	5,767	0.86
	%	100.0%	99.3%	99.3%		
TOTAL TBAY	S	39.0	378.0	27,216		
(0632-0859)	A	39.0	376.1	27,081	27,828	1.03
	%	100.0%	99.5%	99.5%		

TOWARDS DOWNTOWN SAN FRANCISCO FROM 16TH STREET

PERIOD/ROUTE / TIME INTERVAL		TRAINS	CARS	SEATS	PASS'GRS	LOAD FACTOR
PEAK HOUR:						
ALL ROUTES	S	13.0	122.0	8,784		
(0719-0818)	A	12.6	118.5	8,532	6,654	0.78
	%	96.9%	97.1%	97.1%		
BALANCE OF PEAK TRAIN CYCLE						
ALL ROUTES	S	17.0	135.9	9,785		
(0634-0718)	A	17.1	158.1	11,385	6,620	0.58
(0819-0901)	%	100.6%	116.4%	116.4%		
TOTAL PEAK PERIOD TRAIN CYCLE						
ALL ROUTES	S	30.0	257.9	18,569		
(0634-0901)	A	29.7	276.6	19,917	13,274	0.67
	%	99.0%	107.3%	107.3%		

SOUTH AND WESTBOUND FROM ASHBY/ROCKRIDGE

PERIOD/ROUTE / TIME INTERVAL		TRAINS	CARS	SEATS	PASS'GRS	LOAD FACTOR
PEAK HOUR:						
C/DC	S	8.0	80.0	5,760		
(0654-0753)	A	8.0	79.6	5,733	6,441	1.12
	%	100.0%	99.5%	99.5%		
R/DC	S	4.0	40.0	2,880		
(0653-0752)	A	3.9	38.8	2,790	2,435	0.87
	%	97.5%	96.9%	96.9%		
F/R	S	4.0	15.0	1,080		
(0721-0820)	A	4.0	15.4	1,107	808	0.73
	%	100.0%	102.5%	102.5%		
BALANCE OF PEAK TRAIN CYCLE						
C/DC	S	10.0	96.0	6,912		
(0619-0653)	A	10.0	95.4	6,867	6,408	0.93
(0754-0846)	%	100.0%	99.3%	99.3%		
R/DC	S	6.0	54.0	3,888		
(0618-0652)	A	6.1	54.5	3,924	2,961	0.75
(0753-0846)	%	101.7%	100.9%	100.9%		
F/R	S	6.0	24.0	1,728		
(0640-0720)	A	5.9	23.8	1,710	898	0.53
(0821-0907)	%	98.3%	99.0%	99.0%		
TOTAL PEAK PERIOD TRAIN CYCLE						
C/DC	S	18.0	176.0	12,672		
(0619-0846)	A	18.0	175.0	12,600	12,849	1.02
	%	100.0%	99.4%	99.4%		
R/DC						
(0618-0846)	S	10.0	94.0	6,768		
	A	10.0	93.3	6,714	5,396	0.80
	%	100.0%	99.2%	99.2%		
F/R						
(0640-0907)	S	10.0	39.0	2,808		
	A	9.9	39.1	2,817	1,706	0.61
	%	99.0%	100.3%	100.3%		

NORTHBOUND FROM FRUITVALE

PERIOD/ROUTE / TIME INTERVAL		TRAINS	CARS	SEATS	PASS'GRS	LOAD FACTOR
PEAK HOUR:						
F/DC	S	5.0	50.0	3,600		
(0657-0756)	A	5.1	51.3	3,690	4,383	1.19
	%	102.0%	102.5%	102.5%		
F/R	S	5.0	29.0	2,088		
(0719-0818)	A	4.9	28.3	2,034	1,989	0.98
	%	98.0%	97.4%	97.4%		
BALANCE OF PEAK TRAIN CYCLE						
F/DC	S	8.0	58.0	4,176		
(0622-0656)	A	5.9	56.5	4,068	4,125	1.01
(0757-0849)	%	98.3%	97.4%	97.4%		
F/R	S	5.0	21.0	1,512		
(0635-0718)	A	5.0	21.0	1,512	1,181	0.78
(0819-0904)	%	100.0%	100.0%	100.0%		
TOTAL PEAK PERIOD TRAIN CYCLE						
F/DC	S	11.0	108.0	7,776		
(0622-0849)	A	11.0	107.8	7,758	8,508	1.10
	%	100.0%	99.8%	99.8%		
F/R	S	10.0	50.0	3,600		
(0635-0904)	A	9.9	49.3	3,546	3,170	0.89
	%	99.0%	98.5%	98.5%		

TES:

Based on representative weekday data for ridership and train operations (for all peak period trains at their maximum load points).

** Data in rows designated by "S" are scheduled, "A" are actual, and "%" is the percent of scheduled service delivered.

AFTERNOON PEAK PERIOD
LOAD FACTORS FOR ALL TRAINS *
OCTOBER - DECEMBER 1991

TRANSBAY FROM EMBARCADERO

PERIOD/ROUTE TIME INTERVAL		TRAINS	CARS	SEATS	PASS'GRS	LOAD FACTOR
PEAK HOUR:						
C/DC	S**	7.0	70.0	5,040		
(1630-1729)	A**	6.9	68.8	4,950	6,043	1.22
	%**	98.6%	98.2%	98.2%		
F/DC	S	6.0	60.0	4,320		
(1630-1729)	A	5.8	57.4	4,131	4,958	1.20
	%	96.7%	95.6%	95.6%		
R/DC	S	4.0	38.0	2,736		
(1630-1729)	A	4.0	38.1	2,745	3,109	1.13
	%	100.0%	100.3%	100.3%		
TOTAL TBAY	S	17.0	168.0	12,096		
(1630-1729)	A	16.7	164.3	11,826	14,120	1.19
	%	98.2%	97.8%	97.8%		
BALANCE OF PEAK TRAIN CYCLE						
C/DC	S	8.0	80.0	5,760		
(1545-1629)	A	8.0	79.5	5,724	6,831	1.19
(1730-1812)	%	100.0%	99.4%	99.4%		
F/DC	S	5.0	46.0	3,312		
(1545-1629)	A	4.9	45.5	3,276	3,844	1.17
(1730-1812)	%	98.0%	98.9%	98.9%		
R/DC	S	6.0	52.0	3,744		
(1545-1629)	A	6.0	53.0	3,816	3,848	1.01
(1730-1812)	%	100.0%	101.9%	101.9%		
TOTAL TBAY	S	19.0	178.0	12,816		
(1545-1629)	A	18.9	178.0	12,816	14,523	1.13
(1730-1812)	%	99.5%	100.0%	100.0%		
TOTAL PERIOD TRAIN CYCLE						
C/DC	S	15.0	150.0	10,800		
(1545-1812)	A	14.9	148.3	10,674	12,874	1.21
	%	99.3%	98.8%	98.8%		
F/DC	S	11.0	106.0	7,632		
(1545-1812)	A	10.7	102.9	7,407	8,812	1.19
	%	97.3%	97.1%	97.1%		
R/DC	S	10.0	90.0	6,480		
(1545-1812)	A	10.0	91.1	6,561	6,957	1.06
	%	100.0%	101.3%	101.3%		
TOTAL TBAY	S	36.0	346.0	24,912		
(1545-1812)	A	35.6	342.3	24,642	28,643	1.16
	%	98.9%	98.9%	98.9%		

TOWARDS DALY CITY FROM CIVIC CENTER

PERIOD/ROUTE TIME INTERVAL		TRAINS	CARS	SEATS	PASS'GRS	LOAD FACTOR
PEAK HOUR:						
ALL ROUTES	S	12.0	120.0	8,640		
(1630-1729)	A	12.0	120.0	8,640	7,436	0.86
	%	100.0%	100.0%	100.0%		
BALANCE OF PEAK TRAIN CYCLE						
ALL ROUTES	S	18.0	152.0	10,944		
(1545-1629)	A	18.1	157.1	11,313	7,808	0.69
(1730-1812)	%	100.6%	103.4%	103.4%		
TOTAL PERIOD TRAIN CYCLE						
ALL ROUTES	S	30.0	272.0	19,584		
(1545-1812)	A	30.1	277.1	19,953	15,244	0.76
	%	100.3%	101.9%	101.9%		

NORTH AND EASTBOUND FROM MACARTHUR

PERIOD/ROUTE TIME INTERVAL		TRAINS	CARS	SEATS	PASS'GRS	LOAD FACTOR
PEAK HOUR:						
C/DC	S	7.0	70.0	5,040		
(1647-1746)	A	6.9	68.8	4,950	5,829	1.1
	%	98.6%	98.2%	98.2%		
R/DC	S	4.0	38.0	2,736		
(1647-1746)	A	3.9	37.1	2,673	2,935	1.1
	%	97.5%	97.7%	97.7%		
F/R	S	5.0	19.0	1,368		
(1631-1730)	A	4.9	19.4	1,395	1,081	0.7
	%	98.0%	102.0%	102.0%		
BALANCE OF PEAK TRAIN CYCLE						
C/DC	S	8.0	80.0	5,760		
(1602-1829)	A	7.6	75.8	5,454	6,394	1.1
(1747-1829)	%	95.0%	94.7%	94.7%		
R/DC	S	6.0	52.0	3,744		
(1602-1829)	A	6.0	52.8	3,798	3,460	0.9
(1747-1829)	%	100.0%	101.4%	101.4%		
F/R	S	5.0	18.0	1,296		
(1546-1630)	A	5.1	19.1	1,377	829	0.6
(1730-1814)	%	102.0%	106.3%	106.3%		
TOTAL PEAK PERIOD TRAIN CYCLE						
C/DC	S	15.0	150.0	10,800		
(1602-1829)	A	14.5	144.5	10,404	12,223	1.17
	%	96.7%	96.3%	96.3%		
R/DC						
(1602-1829)	S	10.0	90.0	6,480		
	A	9.9	89.9	6,471	6,395	0.99
	%	99.0%	99.9%	99.9%		
F/R						
(1546-1814)	S	10.0	37.0	2,664		
	A	10.0	38.5	2,772	1,910	0.69
	%	100.0%	104.1%	104.1%		

SOUTHBOUND FROM LAKE MERRITT

PERIOD/ROUTE TIME INTERVAL		TRAINS	CARS	SEATS	PASS'GRS	LOAD FACTOR
PEAK HOUR:						
F/DC	S	6.0	60.0	4,320		
(1643-1742)	A	5.8	57.4	4,131	4,657	1.13
	%	96.7%	95.6%	95.6%		
F/R	S	5.0	29.0	2,088		
(1633-1732)	A	4.0	22.9	1,647	1,550	0.94
	%	80.0%	78.9%	78.9%		
BALANCE OF PEAK TRAIN CYCLE						
F/DC	S	8.0	46.0	3,312		
(1558-1642)	A	5.1	47.8	3,438	3,701	1.08
(1743-1825)	%	102.0%	103.8%	103.8%		
F/R	S	5.0	22.0	1,584		
(1547-1632)	A	6.0	27.6	1,989	1,753	0.88
(1733-1816)	%	120.0%	125.6%	125.6%		
TOTAL PEAK PERIOD TRAIN CYCLE						
F/DC	S	11.0	106.0	7,632		
(1558-1825)	A	10.9	105.1	7,569	8,358	1.10
	%	99.1%	99.2%	99.2%		
F/R	S	10.0	51.0	3,672		
(1547-1816)	A	10.0	50.5	3,636	3,303	0.91
	%	100.0%	99.0%	99.0%		

NOTES:

ased on representative weekday data for ridership and train operations (for all peak period trains at their maximum load points).

* Data in rows designated by "S" are scheduled, "A" are actual, and "%" is the percent of scheduled service delivered.

The recent acquisition of 150 C-cars has enabled BART to add capacity under current headway constraints by lengthening trains up to the ten car limit. How the new C-cars have been used to provide added capacity is best revealed by looking at the peak period screenline crossings for all cars in operation. [The maximum screenline crossings are West Oakland-Embarcadero stations for the three transbay routes and Lake Merritt-Fruitvale stations for the Richmond-Fremont route.] Three years ago with a fleet of 439 A- and B-cars, the number of vehicles scheduled to pass through the maximum screenlines during the afternoon peak period was 353 (313 cars on transbay routes and 40 cars on the Richmond-Fremont route). Currently, with 150 more cars and essentially same train schedule, BART is able to provide 397 cars (346 transbay plus 51 Richmond-Fremont). These 44 additional cars represent a 12.5% increase in capacity, and are equivalent to inserting five new trains in BART's schedule. Because all peak hour trains have been near or at the ten-car limit for over a decade, most of the new C-car capacity has been added to trains which pass through the maximum screenlines during the *balance of the peak period*, or 45 minutes just before and after the peak one hour. Spreading of peak demand, a phenomenon wherein people adjust their departure times from home and work to take advantage of better travel conditions, has resulted in greater growth in demand for the balance of the peak period relative to the peak hour. BART has responded by adding and adjusting capacity during these travel times to accommodate this higher demand at the policy 1.15 load factor.

Figure __ (Morning Peak Period Train Load Factors By Route) and Figure __ (Afternoon Peak Period Train Load Factors By Route) summarize on a quarterly basis load factors for all morning and afternoon peak period trains in operation. As seen, peak period load factors are fairly consistent on a seasonal basis but vary by route as well as by time of day (i.e., morning versus afternoon commute periods). Load factors during the morning peak period tend to be somewhat lower than those in the afternoon.

These averages are for all trains during the entire peak period. [This interval of time corresponds to a complete train cycle, or the time it takes a train to travel from a yard and make one full loop on its designated route--approximately 2½ hours.] Load factors during the peak one hour are considerably higher as shown in Figure __ (Morning Peak Hour Train Load Factors By Route) and Figure __ (Afternoon Peak Hour Train Load Factors By Route). Detailed demand and capacity data for the morning and afternoon peak periods are presented in Figures __ (Morning Peak Period Load Factors For All Trains, October-December 1991) and __ (Afternoon Peak Period Load Factors For All Trains, October-December 1991). Note that the reported load factors are based on capacity actually provided. For comparison purposes, scheduled capacity is also shown.

EVALUATION OF FINANCIAL PERFORMANCE

BART's $219.9 million operating budget for fiscal year 1992 is summarized in Figure _ (BART Operating Budget Summary, Fiscal Year 1992). This income and expense statement was formulated on the basis of policy choices and clearly identifiable, quantifiable management objectives. The approach underscored the importance of making tradeoffs and establishing priorities for resource use by emphasizing results and strengthening accountability. The FY 92 operating budget carried forward from the prior fiscal year some high-visibility programs (i.e., new initiatives) which have a direct and tangible benefit to BART riders. These include: station rehabilitation, A- and B-car rehabilitation, and increased station staffing. The budget reflected BART's major themes: customer service, extensions support, system rehabilitation, operating efficiencies, and employee development. Key budget parameters relative to the prior fiscal year included: additional cars and trains online (reflecting operational requirements of the Daly City turnback), 4.4% increase in annual car hours, and continuation of fares at 1986 levels (BART's last fare increase was on January 1, 1986).

An evaluation of how well BART performed relative to its FY 92 operating budget is presented below. As an overview, refer to Figure __ (BART March 1992 Year-To-Date Operating Budget Performance Summary) which summarizes BART's income/expense statement relative to budget for FY 92 relative to budget. Also see Figure ___ (MTC Quarterly Financial and Operating Data Report, January-March 1992) which presents BART's third quarter financial statement as submitted to the Metropolitan Transportation Commission (MTC) in May 1992.

Passenger and Other Operating Revenues

Revenue from passenger fares includes both rail and BART express bus. Rail fare revenue through March 1992 was $73.05 million versus a budgeted $73.70 million (0.9% under budget). Contributing to this unfavorable performance were higher use of discounted senior/student/handicapped tickets relative to budget. Through March 1992, the budgeted discounts for these tickets were $8.29 million versus an actual of $9.37, or $1.08 million unfavorable. Use of BART senior/student/handicapped tickets by non-qualifying persons has been the focus of efforts to curb their illegal use. Fare revenue from BART express bus passengers was on target through March 1992 ($0.79 million actual versus the same level budgeted).

Revenue from sources other than passenger fares through March 1992 amounted to $7.76 million, or 33.3% above a budget level of $5.82 million. The primary reason for this was non-budgeted interest earnings from the 1991 revenue bonds which were issued after the adoption of the FY 92 budget. Total interest earnings were 62.2% above budget ($5.23 million actual versus $3.23 budgeted). The $2.01 million favorable interest earnings offset unfavorable advertising revenue ($0.83 million actual versus $0.90

San Francisco Bay Area Rapid Transit District
Adopted Operating Budget
Fiscal Year 1992
District Summary By Account

EXPENSE GROUP	FY 91 ADOPTED BUDGET	FY 92 ADOPTED BUDGET
NET LABOR EXPENSE	$ 142,358,576	$ 151,677,471
NON-LABOR EXPENSE		
Cost Center Expenses		
Material Usage	$ 1,331,170	$ 1,482,492
Professional & Technical Services	7,408,513	7,830,508
Travel Expenses	415,371	507,774
Insurance Premiums	2,427,151	2,764,577
Provisions for Self-Insurance	2,669,076	2,815,300
Miscellaneous	2,393,756	2,268,760
TOTAL COST CENTER EXPENSE	**$ 16,645,037**	**$ 17,669,411**
Direct Program Expenses		
Material Usage	$ 7,755,236	$ 8,363,970
Rental & Maintenance	5,139,669	5,558,557
Professional & Technical Services	1,548,822	914,222
Express Bus	6,608,008	6,608,008
BART Shuttles	395,200	595,000
Transfer Agreement - AC Transit	4,708,200	2,391,700
Transfer Agreement - MUNI	1,537,600	1,562,100
Power	20,196,312	22,166,900
Utilities	1,038,707	1,053,436
Inventory Write-offs	300,000	0
TOTAL PROGRAM EXPENSE	**$ 49,227,754**	**$ 49,213,893**
TOTAL NON-LABOR EXPENSE	**$ 65,872,791**	**$ 66,883,304**
FY 92 NEW INITIATIVES		**$ 1,348,025**
TOTAL NET OPERATING EXPENSE	**$ 208,231,367**	**$ 219,908,800**

SAN FRANCISCO BAY AREA RAPID TRANSIT DISTRICT
BUDGET PERFORMANCE REPORT
DISTRICT SUMMARY BY ACCOUNT (IN $000)

CURRENT PERIOD BUDGET	CURRENT PERIOD ACTUAL	CURRENT PERIOD $ VAR	CURRENT PERIOD % VAR		FISCAL YEAR TO DATE BUDGET	FISCAL YEAR TO DATE ACTUAL	FISCAL YEAR TO DATE $ VAR	FISCAL YEAR TO DATE % VAR
				REVENUES				
$11,381.7	$11,361.9	$ 19.8-	.2-%	GROSS PASSENGER REVENUE	$ 84,627.0	$ 84,619.7	$ 7.3-	.0 %
1,363.3-	1,459.6-	96.3-	7.1-	DISCOUNTS AND DEDUCTIONS	10,136.2-	10,778.4-	642.2-	6.3-
10,018.4	9,902.3	116.1-	1.2-	NET PASSENGER REVENUE	74,490.8	73,841.3	649.5-	.9-
769.5	3,214.4	2,444.9	317.7	OTHER OPERATING REVENUE	5,821.6	7,759.2	1,937.6	33.3
10,787.9	13,116.7	2,328.8	21.6	TOTAL NET REVENUE	80,312.4	81,600.5	1,288.1	1.6
				LABOR EXPENSES				
10,016.5	9,191.3	825.2	8.2	HOURLY REGULAR TIME	76,829.6	73,116.8	3,712.8	4.8
320.3	309.0	11.3	3.5	HOURLY OVERTIME	4,205.9	5,487.9	1,282.0-	30.5-
10,336.8	9,500.3	836.5	8.1	SUBTOTAL HOURLY	81,035.5	78,604.7	2,430.8	3.0
4,744.7	4,731.6	13.1	.3	SALARIED REGULAR TIME	41,638.2	40,979.1	659.1	1.6
71.3	103.1	31.8-	44.6-	SALARIED OVERTIME	866.3	1,340.6	474.3-	54.8-
4,816.0	4,834.7	18.7-	.4-	SUBTOTAL SALARIED	42,504.5	42,319.7	184.8	.4
22.2	46.5	24.3-	109.5-	TEMPORARY HELP (AGENCY)	227.4	620.0	392.6-	172.6-
15,175.0	14,381.5	793.5	5.2	GROSS LABOR	123,767.4	121,544.4	2,223.0	1.8
1,016.7-	1,561.0-	544.3	53.5	CAPITALIZED LABOR	8,972.6-	8,178.4-	794.2-	8.9-
58.4-	156.0-	97.6	167.1	OTHER LABOR CREDITS	523.0-	794.1-	271.1	51.8
14,099.9	12,664.5	1,435.4	10.2	NET LABOR	114,271.8	112,571.9	1,699.9	1.5
				COST CENTER EXPENSES				
128.9	132.4	3.5-	2.7-	MATERIAL USAGE	1,085.8	955.2	130.6	12.0
640.9	739.5	98.6-	15.4-	PROFESSIONAL & TECHNICAL	5,782.7	4,705.1	1,077.6	18.6
55.7	30.3	25.4	45.6	TRAVEL	368.4	277.0	91.4	24.9
776.2	794.5	18.3-	2.4-	MISCELLANEOUS	6,100.4	5,197.3	903.1	14.8
1,601.7	1,696.7	95.0-	5.9-	SUBTOTAL COST CENTERS	13,337.3	11,020.0	2,317.3	17.4
				DIRECT PROGRAM EXPENSE				
649.0	906.2	257.2-	39.6-	MATERIAL USAGE	5,612.6	6,557.1	944.5-	16.8-
582.4	434.3	148.1	25.4	RENTAL & MAINT. CONTRACTS	2,756.4	1,401.5	954.9	34.6
130.8	297.5	166.7-	127.4-	PROFESSIONAL & TECHNICAL	1,417.8	389.2	1,028.6	72.5
570.9	542.8	28.1	4.9	EXPRESS BUS SERVICE	4,932.5	4,785.0	147.5	3.0
25.0	20.8	4.2	16.8	SHUTTLE BUS SERVICE	340.1	196.7	143.4	42.2
329.5	329.5	.0	.0	BUS TRANSFER AGREEMENTS	2,965.4	2,965.4	.0	.0
1,278.2	1,159.5	118.7	9.3	ELECTRIC POWER	16,912.0	13,519.5	3,392.5	20.1
89.1	103.9	14.8-	16.6-	OTHER UTILITIES	785.6	672.3	113.6	14.5
3,654.9	3,794.5	139.6-	3.8-	SUBTOTAL PROGRAMS	35,722.7	30,886.7	4,836.0	13.5
5,256.6	5,491.2	234.6-	4.5-	TOTAL NON LABOR	49,060.0	41,906.7	7,153.3	14.
19,356.5	18,155.7	1,200.8	6.2	TOTAL OPERATING EXPENSES	163,331.8	154,478.6	8,853.2	5.4
3,568.6-	5,039.0-	3,529.6	41.2	OPERATING SURPLUS/(DEFICIT)	83,019.4-	72,878.1-	10,141.3	12.2
				FINANCIAL ASSISTANCE				
10,043.4	9,814.6	228.8-	2.3-	SALES TAX REVENUE	83,346.2	80,114.7	3,231.5-	3.9-
342.2	440.8	98.6	28.8	PROPERTY TAX REVENUE	5,771.9	6,392.8	620.9	10.8
112.5	.0	112.5-	100.0-	OTHER FINANCIAL ASSISTANCE	337.4	.0	337.4-	100.0-
849.3-	1,180.5-	331.2-	39.0-	DEBT SERVICE ALLOCATIONS	7,643.4-	9,773.8-	2,130.4-	27.9-
10.0-	10.0-	.0	.0	CAPITAL ALLOCATIONS	90.0-	90.0-	.0	.0
9,638.8	9,064.9	573.9-	6.0-	TOTAL FINANCIAL ASSISTANCE	81,722.1	76,643.7	5,078.4-	6.2-
$ 1,070.2	$ 4,025.9	$ 2,955.7	276.2 %	NET OPERATING RESULT	$ 1,297.3-	$ 3,765.6	$ 5,062.9	390.3 %
51.76 %	54.54 %			FAREBOX RATIO	45.61 %	47.80 %		
55.73 %	72.25 %			OPERATING RATIO	49.17 %	52.82 %		
90,926.0	89,772.0			PASSENGER MILES	675,949.0	675,675.0		
20.3 ¢	19.2 ¢			RAILCOST PER PASSENGER MILE	22.9 ¢	21.7 ¢		

QUARTERLY FINANCIAL & OPERATING DATA REPORT

(Article 4 Claimants)

___Motor Bus
___Trolley Bus
___Cable Car
___Demand Response
XXX_Rail
___Ferryboat
___Streetcar/LRV
___Total of All Modes (If Applicable)

MTC FORM 10Q
Page 1 of 1

Quarter Ending: 03/92
Date: 05/15/92

Operator: BARTD

FINANCIAL DATA (See Attached Notes)	Current Qtr Actual	Year-to-Date Actual	Total Adopted Budget	% of Budget Remaining
	CURRENT FISCAL YEAR 1991/1992			
Operating Expenses - Functional				
1. Operations	15,225,232	49,563,709	71,637,067	30.8%
2. Vehicle Maintenance	11,443,121	32,744,786	45,303,406	27.7%
3. Non-Vehicle Maintenance	10,386,279	30,162,993	42,679,925	29.3%
4. General Administration	13,866,654	42,007,249	60,233,402	30.3%
5. Total Expenses	50,921,286	154,478,737	219,903,800	29.8%
Other Expenses*				
Operating Expenses - Object Class				
6. Labor	24,307,047	73,136,187	99,427,353	26.4%
7. Fringe Benefits	12,291,189	39,435,763	52,593,143	26.4%
8. Services	2,963,384	6,895,824	15,211,216	54.7%
9. Fuel/Lubricants				
10. Propulsion Power	2,457,536	9,737,386	16,857,523	42.2%
Purchased Transportation	1,534,651	4,785,045	6,608,008	27.6%
12. Casualty & Liability	1,375,209	3,787,694	5,579,877	32.1%
13. Leases & Rentals				
14. Interest Expense				
15. Other	5,992,270	16,700,838	22,626,580	26.2%
16. Depreciation				
17. Total Expenses	50,921,286	154,478,737	219,903,800	29.8%
Other Expenses*				
Operating Revenues & Assistance				
18. Farebox	24,426,236	73,841,340	101,191,500	27.0%
19. Non-Farebox	4,398,312	7,759,224	7,741,900	-0.2%
20. Operator Funds	27,994,875	86,507,557	120,836,800	28.4%
21. Regional/Federal Funds	0	0	449,800	100.0%
22. Total Oper. Rev. & Asst	56,819,423	168,108,121	230,220,000	27.0%
23. Less Transfer to Capital	(3,502,183)	(9,863,804)	(10,311,200)	4.3%
24. Operating Fund Surplus/(Deficit)	2,395,954	3,765,580	0	
25. Memo Item: Deprec. Expense				
26. Memo Item: CalTrain Subsidy				
OPERATING DATA				
27. Revenue Passengers	18,041,367	54,600,845	73,524,611	25.7%
28. Total Passengers	19,083,572	57,954,038	79,086,052	26.7%
29. Revenue Vehicle Miles	9,693,728	30,524,817	42,224,142	27.7%
30. Revenue Vehicle Hours	302,362	952,115	1,317,035	27.7%
31. Average No. of System Employees	554	1,675	2,263	26.0%

(Rev. 11/84)

* Other Expenses: CalTrain Subsidy Participation, HOV enforcement, ridesharing (SCCTD). These amounts should not be included in lines 5 and 17.

This form has been completed on the following basis (check one):

budgeted), and unfavorable revenue from fines and forfeitures ($0.28 million actual versus $0.46 million budgeted). Despite the January 1992 cancellation by Host International of its contract with BART for retail stores in stations, concessions income through March 1992 exceeded budget by 0.8% ($0.874 million actual versus $0.867 budgeted). Remaining non-passenger revenue line items were favorable relative to budget. These include: fiber optics revenue, rent on buildings and other property, and parking revenue (Lake Merritt Station only).

Labor and Non-Labor Expense

Through March 1992 net labor expense was $112.57 million versus $114.27 million budgeted. BART's total staffing at the end of March 1992 was 2,684 authorized positions (operating and capitalized, full- and part-time). Of these positions, 93 were vacant at the end of the period. Figure _ (BART Position Control Status Report, Month Ending March 1992) summarizes the status of BART's workforce relative to authorized positions. While bottom-line labor expense was favorable, over-time expense was 34.6% above budget ($6.83 million versus $5.01 million budgeted). This is due to the 3.5% vacancy rate as reflected by the 93 unfilled positions.

Non-labor expense through March 1992 was 14.6% below budget. A key budget line items contributing to this favorable performance is electric power which was 20.1% under budget ($13.52 million actual versus $16.91 budgeted).

Financial Assistance and Capital Allocations (from operating sources)

BART's budgeted sales tax revenue for FY 92 reflects assumptions made in the Spring of 1991 regarding the extent and duration of the recession. Time has proven the budget forecasts to be optimistic relative to the events which actually took place. Loss of jobs, a decline in per capita income, and other unfavorable trends for key economic indicators reflect the pervasiveness of *belt tightening* at all levels. Reduced spending translated into lower sales tax revenue, BART included. Through March 1992, BART received $3.23 million **less** in sales tax revenue than forecast ($80.12 million actual versus $83.35 million budgeted). Compared to this unfavorable level, property tax receipts came in 10.8% above budget ($6.34 million actual versus $5.77 budgeted). As of March 1992, BART did not receive its STA/TDA allocation from MTC in the amount of $0.34 million.

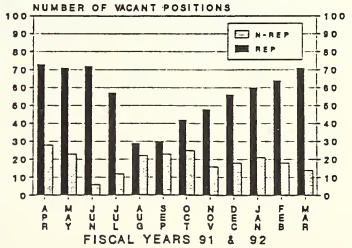
Allocations from BART's operating budget for servicing long-term debt were 27.9% unfavorable to budget reflecting the repayment schedule for the 1991 revenue bonds which were issued after adoption of the FY 92 budget. [Repayment of the 1991 revenue bonds began in September 1991.] Debt service allocation amounted to $9.77 million

POSITION CONTROL STATUS REPORT
MONTH ENDING MARCH 31, 1992

	REP	N-REP	TOTAL
TOTAL AUTHORIZED POSITIONS			**2,684**
BUDGETED FULL-TIME	2,292	340	2,632
BUDGETED PART-TIME (1)	41	0	41
TRAINEE/APPRENTICE PROGRAM	0	0	0
GENERAL MANAGER'S AUTHORITY - CAPITAL	2	9	11
CURRENTLY FILLED			**2,591**
FULL-TIME	2,229	326	2,555
OPERATING	2,169	201	2,370
CAPITAL	60	125	185
PART-TIME	36	0	36
OPERATING	36	0	36
CAPITAL	0	0	0
CURRENTLY VACANT POSITIONS			**93**
FULL-TIME	71	14	85
OPERATING	61	11	72
CAPITAL	10	3	13
PART-TIME	8	0	8
OPERATING	8	0	8
CAPITAL	0	0	0
TRAINEE/APPRENTICE PROGRAM	0	0	0
EMPLOYMENT ACTIVITY THIS MONTH			**22**
NEW HIRES	12	3	15
OPERATING	12	0	12
CAPITAL	0	3	3
PROMOTIONS	7	0	7
VACANCY ACTIVITY THIS MONTH (2)			**52**
REQUISITIONED	31	2	33
POSTED	16	3	19
TERMINATION ACTIVITY THIS MONTH			**8**
VOLUNTARY QUIT	3	0	3
TERMINATION	1	0	1
RETIREMENT	2	0	2
DECEASED	2	0	2
LAY OFF	0	0	0

(1) BUDGETED P/T CADETS, STATION AGENTS AND T/O's
(2) ACTIONS TO FILL VACANCIES

Prepared by Management Analysis & HR & SS



The vacancy rate continues to remain at approximately 3% of the overall budgeted headcount.

through March 1992 versus a budgeted level of $7.64 million. Other allocations to capital projects equalled budget.

Net of debt service and other capital allocations, total financial assistance to BART amounted to $76.64 million versus $81.72 million budgeted.

Net Operating Result and Financial Indicators

Above budget revenues (+ $1.29 million) and below budget expense (- $8.85 million) offset unfavorable net financial assistance (-$5.08 million). This helped BART to achieve a net financial result of $3.77 million through March 1992, or $5.06 million more than the $1.30 million budgeted deficit.

As a result of this favorable financial statement, budgeted levels for all of BART's key financial indicators were exceeded as of the end of March 1992. This includes the rail farebox ratio (49.9% actual versus 47.5% budgeted), the system operating ratio (52.8% actual versus 49.2% budgeted), and the rail cost per passenger mile (21.7¢ actual versus 22.9¢ budgeted). Figure __ (Rail Farebox Ratio), Figure __ (System Operating Ratio), and Figure ___ (Rail Cost Per Passenger Mile) present BART's record for achieving budgeted levels for these three key financial indicators.

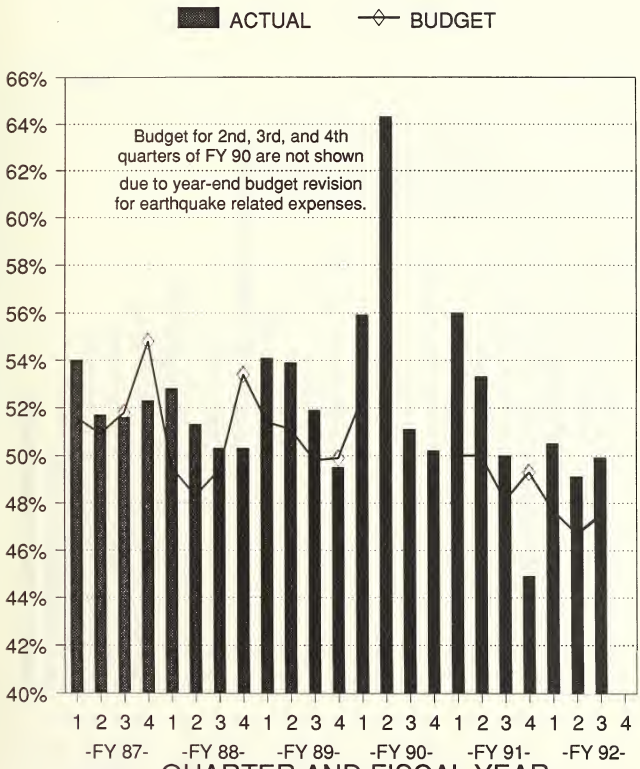
Of note is the progress made with respect to improving the financial performance of BART express bus operations. Three years ago, the fiscal year-to-date farebox ratio for this service stood at 10.9%. Today, after streamlining of routes, better inter-modal coordination, and privatization of the express bus contract (at a lower cost than previously with AC Transit), the farebox ratio through March 1992 this fiscal year is 16.5%.

EVALUATION OF KEY CAPITAL PROGRAM ELEMENTS

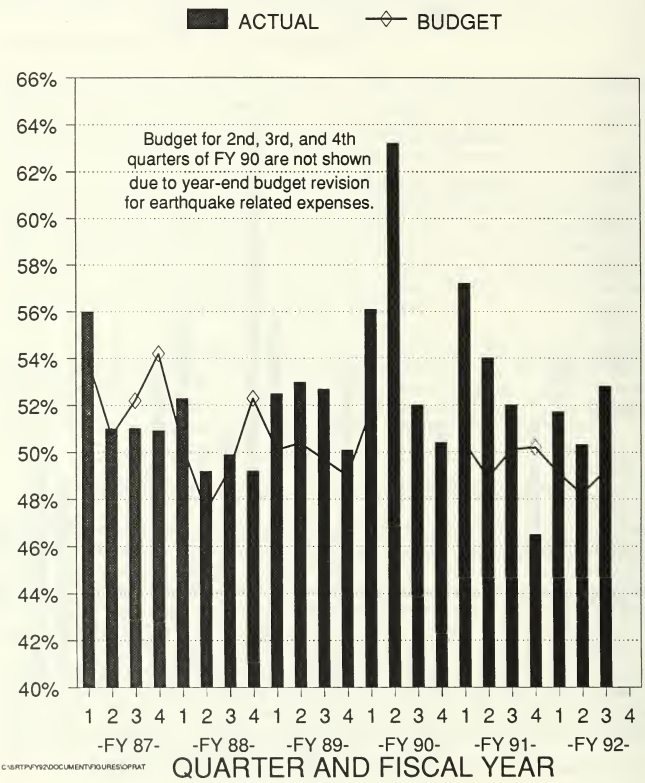
BART's Capital Improvement Program (CIP) document is published annually and contains detailed financial and implementation status information regarding all District capital projects. Without duplicating the information presented in the CIP, the purpose of this section is to highlight the key projects needed to expand BART service. This, in effect, will set the stage for Chapter 3 which presents BART's planned service improvements over the next ten years.

BART's efforts to increase system capacity and for bringing extensions online are based on plans which have been developed and updated for more than a decade, and are well documented. The projects required for BART to expand service fall into four basic groups. These address: car requirements, headway reduction, online train expansion,

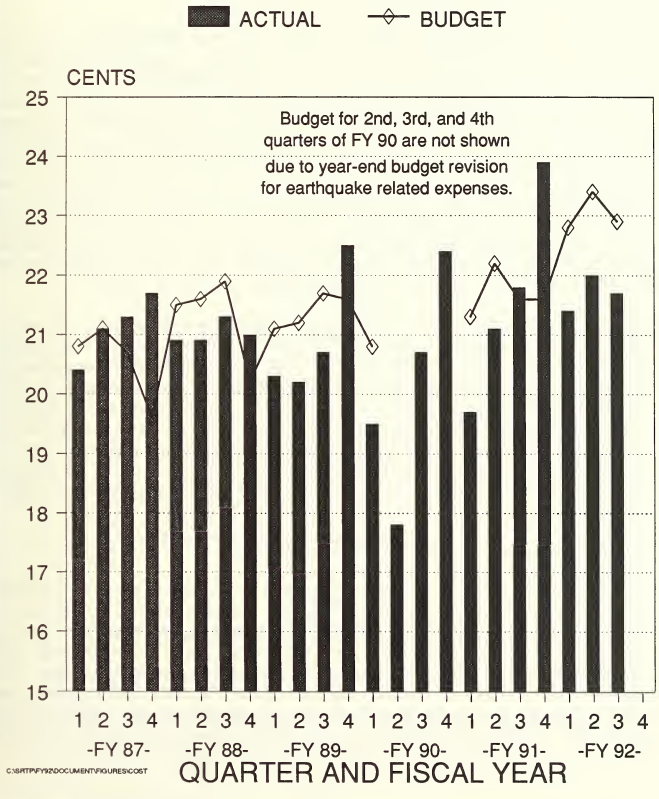
RAIL FAREBOX RATIO



SYSTEM OPERATING RATIO



RAIL COST/PASSENGER MILE


ACTUAL
BUDGET
CENTS
25
24
23
22
21
20
19
18
17
16
15
Budget for 2nd, 3rd, and 4th quarters of FY 90 are not shown due to year-end budget revision for earthquake related expenses.
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4
-FY 87- -FY 88- -FY 89- -FY 90- -FY 91- -FY 92-
C:\SRTP\FY92\DOCUMENT\FIGURES\COST
QUARTER AND FISCAL YEAR

and extensions. Projects within each of these groups are summarized in Figure __ (Key Capital Program Projects Required For Expanded Service) and are discussed below.

Current Fleet And Programmed New Car Procurement

BART's current fleet consists of 589 cars: 136 A-cars (with cab controls), 303 B-cars (without cab controls), and 150 C-cars (with cab controls). Based on current service requirements, which include *faster* service as of June 1992 and achievement of the 1.15 peak period load factor objective, BART needs a total of 526 cars to provide weekday service. Of these cars, 398 are used to form revenue-service online trains, 55 cars are held as ready spares, and 73 cars are in preventative maintenance (in accordance with BART's standards of 10% of non-cab and 15% of cab-control cars held in preventative maintenance). In addition to these 526 cars, BART has 40 A-cars which cannot be used currently, since A-car requirements are a function of the number of online trains. [A maximum of two A-cars can be used per train. For planning purposes, an average of 1.75 A-cars per train has been assumed in order to maximize use of C-cars for improved operational flexibility]. The remaining 23 cars in BART's fleet are not needed at this time but will be pressed into service as demand dictates.

The need for additional cars is based on future ridership growth as is discussed in Chapter 3. This includes the current new car contract with Morrison-Knudsen, signed in March 1992, which calls for the delivery of 80 vehicles between March and December 1995 at the rate of about 25 cars each calendar quarter. The first option for 70 additional cars (20 of which are C-cars with cab controls and 50 B-cars without cab controls) may be exercised such that there is no or little interruption of the car delivery schedule from the original 80-car order. A second option may be exercised for 100 more cars, all of which are B-cars, without cab controls. Should both of these options be exercised, BART's fleet would grow by 250 cars to a total of 839 vehicles by September 1997.

Programmed Projects Needed To Reduce Headways

Under the District's Capacity Expansion Program, key projects have been implemented since the late 1970s which have enabled BART to reduce headways and increase the number of online cars and trains. These projects are well documented in prior year SRTP/CIPs and include the addition of the KE track, Daly City turnback and yard, and C-cars. As of June 1992, the system can support an average minimum service schedule headway of 180 seconds, or 20 trains per hour in one direction. Higher service levels (i.e., higher frequency service at reduced train headways) are not possible until the wayside train control/system performance modifications project is complete. Once these modifications are in place, now scheduled for December 1994, BART will be able to

Figure __

KEY CAPITAL PROJECTS IN SUPPORT OF EXPANDED SERVICE

FLEET EXPANSION AND VEHICLE RELATED PROJECTS:

- Current contract with Morrison-Knudsen for 80 new cars
- Two options for 170 more cars, for a total of 250 new cars
- Car rehabilitation of existing A- and B-car fleet
- Yard improvements for car storage

HEADWAY REDUCTION:

- Brake rate algorithm modifications
- Wayside train control/system performance modifications
- Advance automatic train control modifications

EXPANSION OF ONLINE TRAINS:

- Central control display board modifications
- Systemwide radio network
- Enhanced train identification & destination codes

EXTENSIONS:

- A-line resignalling (between Bay Fair and Lake Merritt stations)
- A-line electrical capacity increase (between Bay Fair and Lake Merritt stations)

FILE: C:\SRTP\FY92\DOCUMENT\FIGURES\KEYCAP.FIG, June 30, 1992

operate at a minimum service schedule headway of 135 seconds, or 24 trains per hour in one direction. One additional project, the brake rate algorithm modifications, is scheduled for completion by October 1992. This project is not critical for achieving a 135 second headway but is being implemented to smooth out the speed profiles to provide for improved train performance (including a more comfortable ride) under closer headway operations.

Implementation of service at headways below 135 seconds is under investigation as part of the advanced train control project, which would allow BART to operate at a minimum scheduled headway of 120 seconds.

Programmed Projects Needed To Expand Online Trains

Part of BART's Capacity Expansion Program is the implementation of projects to allow the system to operate with substantially more online trains than is currently possible. The newly implemented central control system (CCS) was a major milestone toward this objective. Three projects are currently in various stages of implementation which, when all are completed, will enable BART to expand service above the current maximum of about 50 online trains. These are the central control board display modifications (scheduled for completion by December 1992), the new systemwide radio network (July 1995 completion), and enhanced train identification and destination codes (September 1996 completion). The latter project will replace the current 64-maximum train identification and destination codes and supports adding trains for extensions.

Extensions Service Phasing

The status for each of BART's Phase I extensions is summarized in Figure __, (Phase I BART Extensions, Programmed Start Of Service). As shown, three of the phase I extensions are scheduled to open for service within a four month period starting in July 1995: North Concord (July), Colma (September), and East Dublin (October). Extensions to West Pittsburg and to Warm Springs are currently scheduled to open in March 1997 and March 1998, respectively. Finally, the remaining three-station extension south of Colma to San Francisco Airport is slated to open by June 2002.

Car requirements for these extensions have been considered in the new car procurement schedule, which includes two options beyond the current commitment for 80 new cars (see *Current Fleet and New Car Procurement*, above). Considerations for adding trains on the system, including those for extensions, are also being addressed as discussed, above (see *Programmed Projects Needed To Add Online Trains*). In addition to the projects already identified, are two other projects which will support direct *Dublin/San*

Figure __

PHASE I BART EXTENSIONS
PROGRAMMED START OF SERVICE

• JUL 95 - North Concord
• SEP 95 - Colma
• OCT 95 - East Dublin
• MAR 97 - West Pittsburg
• MAR 98 - Warm Springs
• JUN 98 - West Dublin
• JUN 02 - San Francisco Airport

FILE: C:\SRTP\FY92\DOCUMENT\FIGURES\EXTEN.FIG, June 26, 1992

Francisco service (i.e., a new fifth route). This requires that the portion of the system between Lake Merritt and Bay Fair stations be upgraded, which is the purpose of the A-line resignalling and electrical capacity increase projects. These programmed projects are both scheduled for completion by July 1995, three months in advance of the planned start of service to East Dublin station.

CHAPTER 3

PLANNED SERVICE AND PROGRAMS

RIDERSHIP FORECAST

BART's service plan and capital program are based on *expectations* of future ridership. Forecasts used in this SRTP are consistent with those presented in last year's Plan. Ridership projections are based on a forecasting model developed by Manuel Padron & Associates (MPA) as part of BART's SRTP and Extensions Service Planning (ESP) efforts. MPA's base assumptions are consistent with those used by MTC and ABAG for population and employment growth and for regional travel. Population and employment projections used in forecasting BART ridership are summarized in Figure __ (Regional Population Forecasts) and Figure __ (Regional Employment Forecasts).

The MPA model forecast identified ridership figures for each fiscal year. These fiscal year ridership figures serve as the basis for quarterly forecasts which were developed and are more closely linked to the opening of each extension and other service improvements. This refinement is essential for analyzing service improvements versus demand. [Refer to Appendix A: BART Service Expansion and Key System Components, Headway Reduction and Extensions which presents the details of the analysis for formulating the service plan with regard to demand, car requirements, load factors, headway reduction, and car storage requirements.] One important variance relative to the MPA forecast is noted. The implementation phasing of the San Francisco Airport extension is such that it is to be in service for only one month in FY 2002. As such, *the MPA average weekday ridership forecast of 378,000 trips for FY 2002 is assumed to be an end point in the fiscal year and not the average for the entire year.* The average weekday ridership for FY 2002 in this SRTP is projected to be 351,000 trips. This is consistent with results of an analysis performed to cross-check the incremental ridership due to the extension to San Francisco Airport, which includes stations at South San Francisco, Tanforan, and the Airport (service to Colma Station is to start in September 1995). Results of this analysis reveal an incremental ridership on an average weekday basis of 30,000 trips and is consistent with prior forecasts.

Regional Population Growth

Assumptions for regional population include constant year-to-year growth throughout the current ten year period, and a tapering effect sometime after 2010. The 1990 population base used in the MPA forecasting model for the nine-county Bay Area is 6.0 million. By the year 2000, population in the nine counties is projected to grow to 6.8 million, or 13.2% above 1990s. In comparison, the population for the current three-county BART District is projected to grow 11.4% from a 1990 base of 2.8 million to 3.1 million in 2000. Within the BART District, the highest percentage gain in population is projected for Contra Costa county, 18.2% in the decade. In the same period, Alameda county's population is expected to increase 10.5%, while San Francisco's gain is 5.2%.

Figure __

REGIONAL POPULATION FORECASTS

COUNTY	1990	1995	2000
San Francisco	723,957	735,227	761,811
Alameda	1,279,182	1,347,417	1,413,967
Contra Costa	803,732	886,382	950,029
District Subtotal	*2,806,871*	*2,969,026*	*3,125,807*
San Mateo	649,623	673,041	697,456
Santa Clara	1,497,577	1,591,355	1,683,383
Marin	230,096	237,685	246,519
Solano	340,421	406,548	462,774
Napa	110,765	118,698	125,774
Sonoma	388,222	437,939	479,356
Region Total	***6,023,575***	***6,434,292***	***6,820,069***

FILE: C:\SRTP\FY92\DOCUMENT\FIGURES\POP.FIG, June 30, 1992

Figure __

REGIONAL EMPLOYMENT FORECASTS

COUNTY	1990	1995	2000
San Francisco	571,809	612,177	641,430
Alameda	606,556	672,119	739,411
Contra Costa	291,649	334,233	361,790
District Subtotal	*1,470,014*	*1,618,529*	*1,742,631*
San Mateo	303,548	336,831	361,081
Santa Clara	868,486	950,707	1,025,209
Marin	99,950	114,310	123,670
Solano	119,316	141,384	161,023
Napa	46,979	52,739	58,955
Sonoma	140,049	164,563	186,208
Region Total	***3,048,342***	***3,379,063***	***3,658,777***

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Regional Employment Growth

Employment projections used in the MPA model for forecasting BART ridership show a 20.0% increase in the number of jobs in the nine-county Bay Area between 1990 and 2000, from a base of 3.0 million jobs to 3.7 million. The three BART counties are expected to experience somewhat lower growth, at 18.5%, from a base of 1.4 million jobs to 1.7 million in 2000. This is primarily due to a relatively low 12.2% growth forecast for San Francisco versus 24.0% for Contra Costa county and 21.9% for Alameda county.

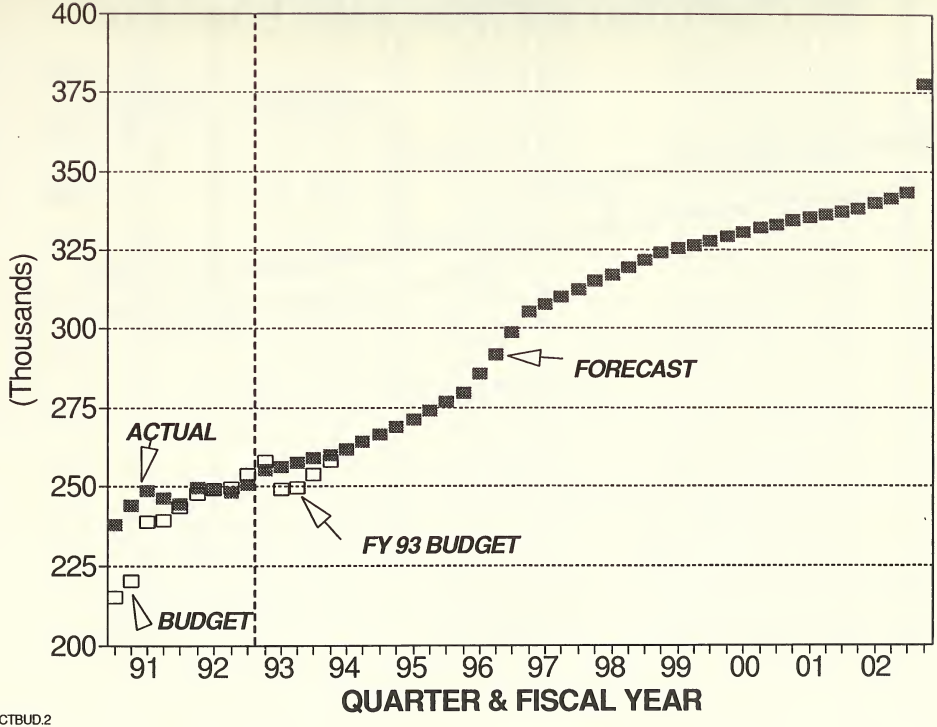
Other BART Ridership Influencing Factors

Other key assumptions used by MPA for forecasting BART ridership include consideration for BART fares, travel times (highway and BART), station access, and start of extensions service. Base ridership forecasts were developed using *current* BART fares throughout the ten year planning period. Travel times assumed faster BART run times, which took effect in June 1992, and degradation of auto travel times reflecting increased highway congestion. The implicit assumptions regarding access to BART include a continuation of the current relationship between the supply and demand for station parking. It is also assumed that transit services operated by other Bay Area agencies which interface with BART will continue at current levels *except* for BART express bus service. It is assumed that service on portions of BART express routes which coincide with BART extensions will be discontinued when rail service begins. Assumptions regarding the start of service for each of the phase I extensions includes the schedule as identified in Figure _ (Phase I BART Extensions, Programmed Start of Service) in Chapter 2. For planning purposes, an *external* station is assumed for the San Francisco Airport extension which is programmed to open by June 2002. Additionally, the extension to Dublin is assumed to open in October 1995 with two stations: Castro Valley and East Dublin. The West Dublin Station is assumed to be a *non-operational shell* which is assumed to open in FY 1998.

Average Weekday Ridership

Average weekday ridership for the current ten year planning timeframe is projected to increase by about 50%, from 252,000 trips as of the end of FY 92 to 378,000 trips by the end of FY 2002 when all phase I BART extensions are in service (refer to Figure __, Actual and Forecast BART Average Weekday Ridership). As stated in the introduction to the ridership forecast section, the assumed June 2002 opening of the San Francisco Airport extension (i.e., only one month in the entire 2002 fiscal year) results in an average weekday ridership for FY 2002 of 351,000 trips, substantially lower than the June 2002 average *with* the extension to the Airport. This sharp increase is apparent in Figure _

ACTUAL/FORECAST AVG WEEKDAY RIDERSHIP



WDACTBUD.2

(Actual and Forecast Average Weekday Ridership) between the third and fourth quarters of FY 2002.

Based on the forecast of average weekday ridership, estimates were made for maximum screenline peak period trips. [*Peak period* is defined as a two and one-half hour round-trip train run time; the time required for a train to travel from a yard to the opposite end of the line and return to the same yard.] As shown in Figure __ (Actual and Forecast Maximum Screenline Peak Period Trips), the number of passengers on an average weekday passing through the maximum load points during the peak period 32,000 as of the end of FY 1992. With the Airport extension open at the end of FY 2002, this volume of peak passengers is forecast to increase 50% to 48,000. *This peak period level of ridership effectively defines the capacity BART will need to provide by the close of FY 2002 with all phase I extensions in service.*

RAIL SERVICE EXPANSION

The plan for expanding rail service is summarized in Figure _ (BART Service Expansion, Headway Reduction and Extensions). Rail service expansion will take place over the next ten years such that sufficient BART capacity may be provided to meet anticipated ridership at the 1.15 policy load factor for peak operations. The phasing of capacity expansion projects and other key system improvements support the achievement of BART's load factor objective. Within this framework, BART will be providing more service by:

1. Rehabilitating the existing fleet and procuring a sufficient number of new vehicles to meet growth in demand including cars needed for extensions.

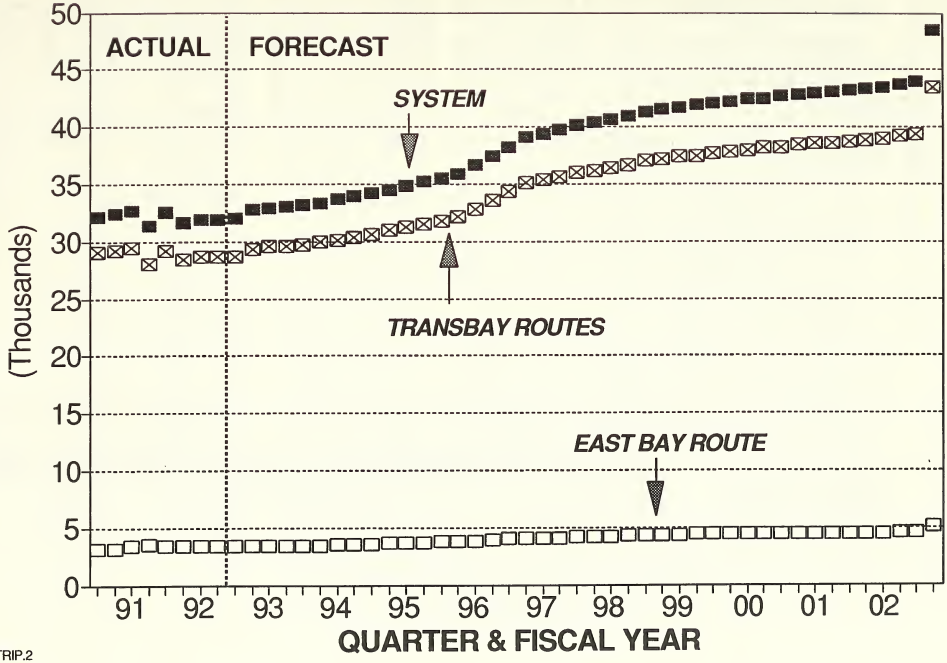
2. Completing projects to allow the minimum scheduled headway to be reduced below the current level so that higher frequency train service can be provided.

3. Completing projects to allow the system to handle more trains at any one time than is currently possible.

4. Completing extensions to serve new markets in the East Bay, South Bay, and Peninsula.

BART's service expansion plan, as presented in Figure __ (BART Service Expansion, Headway Reduction and Extensions), is discussed below as it relates to each of these areas.

ACTUAL & FORECAST MAXIMUM SCREENLINE AVERAGE PEAK PERIOD LOAD FACTORS



MAXTRIP.2

BART SERVICE EXPANSION
HEADWAY REDUCTION AND EXTENSIONS

MINIMUM HEADWAY Seconds			PLANNED SERVICE LEVEL	MAXIMUM PLANNED CAPACITY		FLEET ALLOCATION					UNFINISHED PROJECTS REQUIRED TO ACHIEVE SERVICE LEVELS AND OTHER KEY PROJECTS	PROJECT COMPLETION DATE
SYSTEM CAPABILITY		PLANNED	START	TRANSBAY	TRAINS	SERVICE CAR REQUIREMENTS			IN SHOPS	TOTAL		
DESIGN	SERVICE	SERVICE	DATE	TRAINS/HR	ON LINE	ONLINE	SPARES	TOTAL	& YARDS	FLEET		
120	180	180	Jun 92	17	43	398	55	453	136	589	1. PL/timetable change (faster service).	Jun 92
										589	2. Brake rate algorithm modifications.	Oct 92
										589	3. Central control display board modifications.	Dec 92
										589	4. Yard improvement project (car storage).	Jul 93
										589	5. M-line WTC/SPM.	Dec 94
105	135	150	Dec 94	20	49	424	55	479	110	589	6. Enhanced train id & destination codes.	Dec 94
										594	7. Current contract, first 5 of 80 new cars arrive.	Mar 95
										627	8. Systemwide Radio Network.	Jul 95
										627	9. A-Line resignalling.	Jul 95
										627	10. A-Line electrical capacity increase.	Jul 95
										627	11. Service to North Concord begins.	Jul 95
										615	12. Car rehabilitation begins Aug 95 (see #23).	—
		150	Sep 95	20	50	448	55	503	121	624	13. Service to Colma begins.	Sep 95
		150	Oct 95	24	57	490	55	545	87	632	14. Service to East Dublin begins.	Oct 95
										649	15. Current contract, all 80 new cars arrive.	Dec 95
		150	Jun 96	24	57	510	55	565	124	689	16. 1st option, 50 of 70 new cars arrive (130 total).	Jun 96
105	135	135	Sep 96	26	61	514	55	569	145	714	17. 1st option, all 70 new cars arrive (150 total).	Sep 96
										714	18. 2nd option, 5 of 100 new cars arrive (155 total).	Sep 96
		135	Mar 97	26	63	534	55	589	175	764	19. Service to West Pittsburg begins.	Mar 97
										809	20. 2nd option, all 100 new cars arrive (250 total).	Sep 97
		135	Mar 98	26	67	576	55	631	178	809	21. Service to Warm Springs begins.	Mar 98
TBD	120	120	Sep 98	28	71	582	55	637	172	809	22. Advanced ATC for 120 sec headways.	Jul 98
						590	55	645	194	839	23. Car rehabilitation ends.	Sep 99
		120	Mar 02	28	71	609	55	664	175	839	24. West Dublin Station opens.	TBD
TBD	120	120	Jun 02	28	75	685	55	740	99	839	25. Service to SFO begins.	Jun 02

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Fleet Expansion And Car Storage Requirements

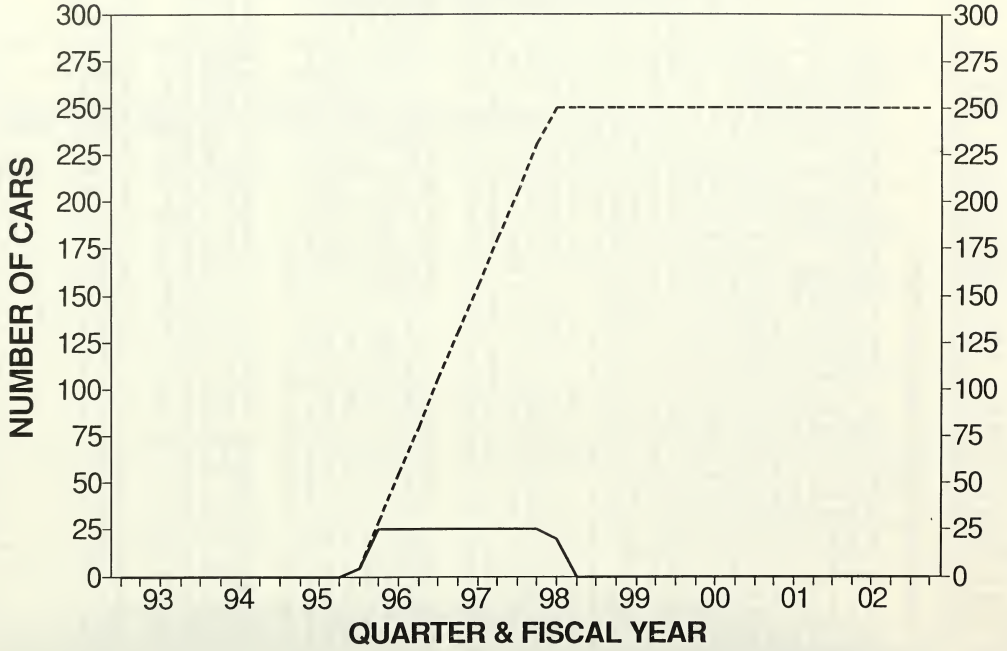
The current contract with Morrison-Knudsen will provide 80 new vehicles which are to be delivered between March 1995 and December 1995 (refer to *Evaluation of Key Capital Program Elements, Current Fleet and Programmed New Car Procurement* section in Chapter 2). This contract and the two options BART may exercise for up to a total of 250 new vehicles is based on an analysis of system needs ___ years ago. This car procurement is shown graphically in Figure __, (New Transit Car Acquisitions) and in tabular form with key milestones identified in Figure __ (Planned Fleet Expansion, and Vehicle Related Projects). The status of the fleet, as service is expanded and service requirements change, is presented in Figure __ (Status of Cars In Fleet). The 15% cab-control/10% non-cab control preventative maintenance standard is assumed to be constant throughout the ten year period, as is the 55 cars held as online ready spares. Cars in for rehabilitation average between 20 and 30 throughout the program, which is to begin in August 1995 and end in June 1999. Online car requirements are a function of demand. The status for all remaining vehicles in the fleet are a function the fleet size, which determines how many cars are held in inventory and not needed at any point in time. An additional factor is the number of online trains which determines A-car utilization. Current plans call for the conversion of 80 A-cars to B-cars during the first part of the car rehabilitation program. Since A-cars have restricted use as lead or trail vehicles, these conversions will provide added operational flexibility as well as allow BART to make greater use of the existing fleet. Current analysis underscores the need for 250 new vehicles to meet demand at BART's 1.15 peak period load factor objective:

Uninterrupted Car Delivery Schedule: Should BART exercise the second option under an *uninterrupted* car delivery schedule, the District will have to maintain an inventory of vehicles substantially greater than it needs. This is apparent in Figure __, (New Car Buy Versus Excess/Deficit Cars). It appears that procuring 150 new cars within the context of the current contract and first option (with the last car to be delivered by October 1996) would satisfy BART's vehicle needs through FY 1998. Additional cars would be needed to meet growth in demand after this time, and all 250 new cars will be needed when service to San Francisco Airport begins in June 2002.

1.15 Load Factor Standard: Maintaining a 1.15 peak period load factor standard is feasible through the ten year planning period as shown in Figure __, (Actual and Forecast Average Peak Period Load Factors). The timing of new car deliveries beginning in March 1995 provides sufficient capacity for BART to achieve the policy load factor even with the removal of between 20 and 30 cars for rehabilitation beginning in August 1995.

Car Storage Requirements: Figure __ (Car Storage Capacity Versus Needs) identifies BART's car storage capacity versus needs throughout the ten year planning period. As shown, BART's car storage needs are currently just under the available capacity with 516

NEW TRANSIT CAR ACQUISITIONS



NEWCARS.2

PLANNED FLEET EXPANSION AND VEHICLE RELATED PROJECTS *

PLANNED FLEET ADDITIONS Assumes 250-Car Buy Between Mar 95 & Sep 9 Uninterrupted Delivery @ 25 Cars Per Quarter		DATE End of Quarter Or Other Key Milestone	TOTAL FLEET	UNFINISHED PROJECTS REQUIRED TO ACHIEVE SERVICE LEVEL Project Numbers Correspond To Those Presented in "Headway Reduction and Extensions" Chart	PROJECT COMPLETION DATE
INCREMENTAL	CUMMULATIVE				
0	0	Jun 92	589	--- (Current fleet)	---
5	5	Mar 95	594	4. Yard improvement project (for car storage).	Jul 93
				7. First 5 new cars under current contract for 80 arrive.	Mar 95
25	30	Jun 95	619		
25	55	Sep 95	624	12. Car rehab starts Aug 95 (20-30 cars out through Jun 99).	---
25	80	Dec 95	649	15. Current contract, first 80 new cars arrive.	Dec 95
25	105	Mar 96	674		
25	130	Jun 96	689	16. First 50 new cars under 1st option for 70 arrive.	Jun 96
25	155	Sep 96	714	17. First option, 70 new cars arrive (150 total).	Sep 96
				18. First 5 new cars under 2nd option for 100 arrive.	Sep 96
25	180	Dec 96	739		
25	205	Mar 97	764		
25	230	Jun 97	789		
20	250	Sep 97	809	20. Second option, 100 new cars arrive (250 total).	Sep 97
0	250	Jun 99	839	23. Car rehabilitation complete.	Jun 99

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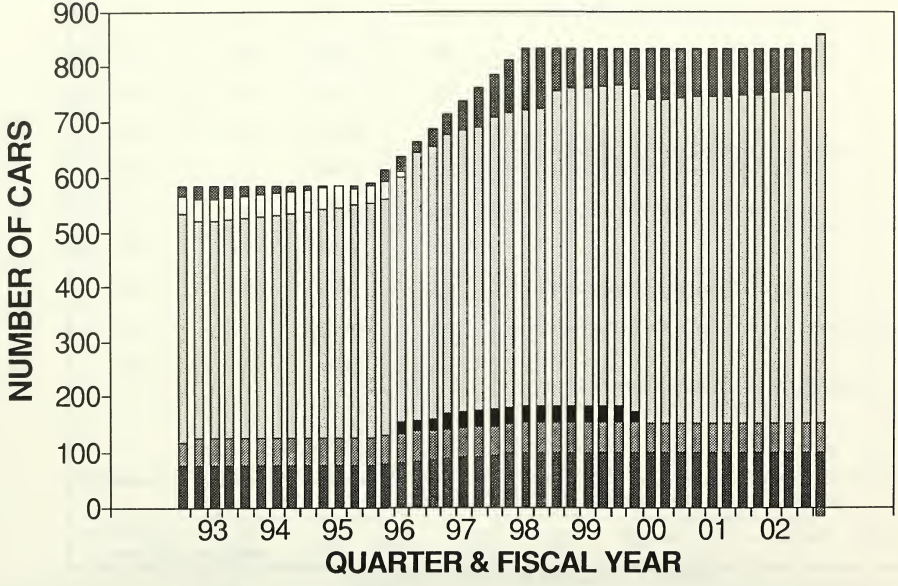
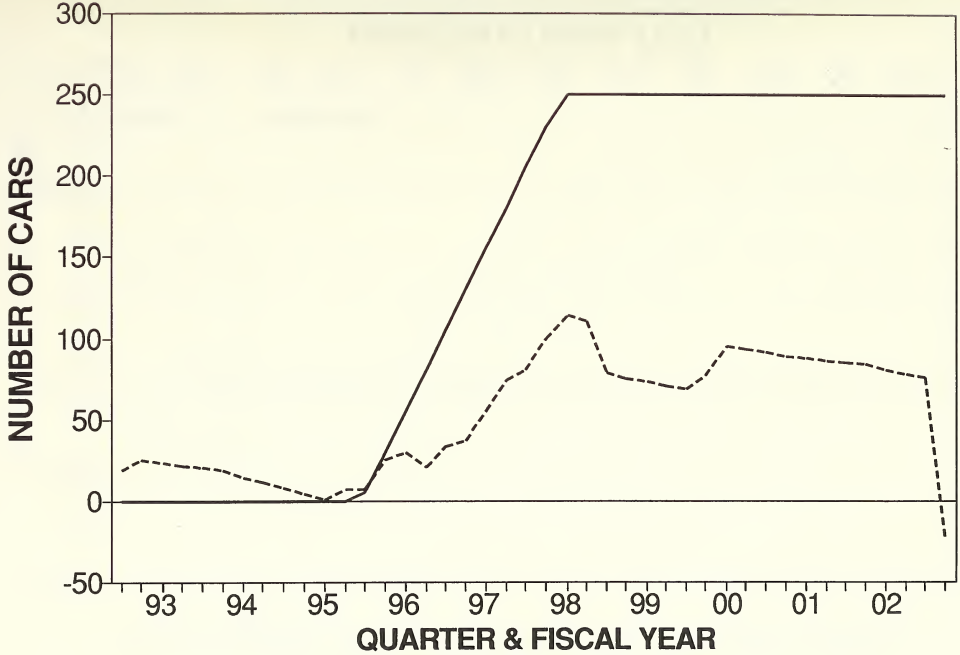
* Includes cars added for extensions.

STATUS OF CARS IN FLEET



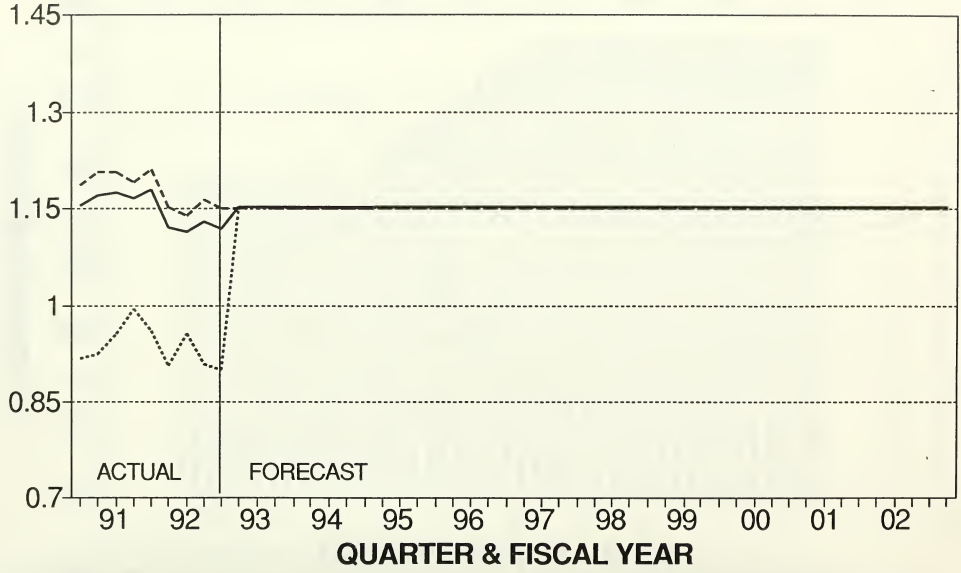
FLEESTAT.2

NEW CAR BUYS vs EXCESS/(DEFICIT) CARS



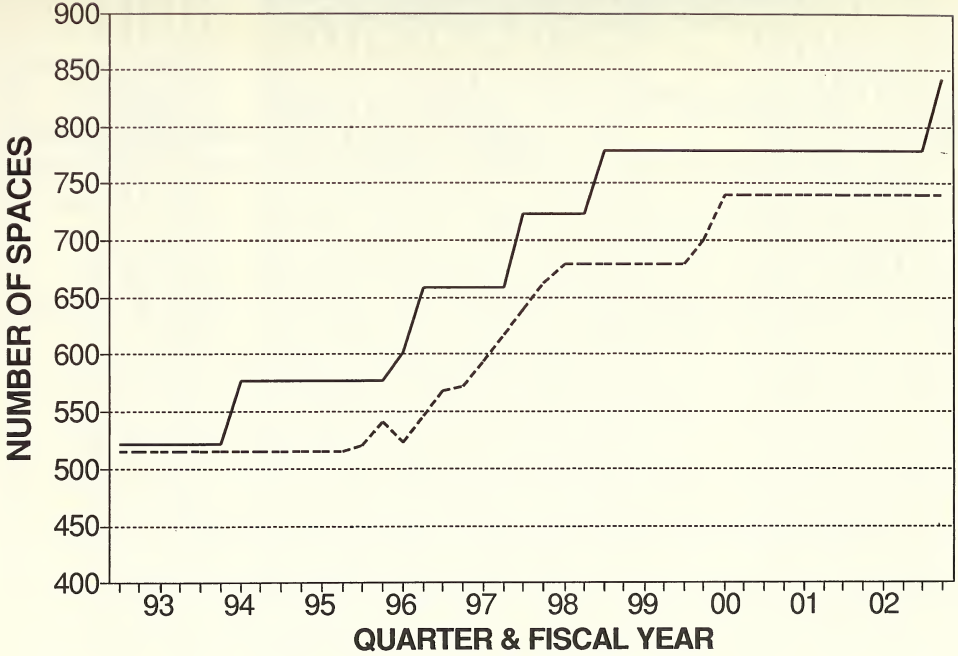
CARDEF.2

ACTUAL & FORECAST
AVERAGE PEAK PERIOD LOAD FACTORS



LOADFACT.3

CAR STORAGE CAPACITY vs NEEDS



CARSTOR.2

cars needing overnight storage versus 521 usable storage spaces. The number of stored cars is equal to the total fleet less cars in for preventative maintenance and cars in for rehabilitation (PM cars are assumed to be located inside shops and cars in for rehabilitation are to be physically removed from BART property). The number of *usable* storage spaces is equal to 80% of the total spaces in the four existing yards (651 x 0.8 = 521). This factor ensures that sufficient free space is available for necessary yard moves (i.e., train formation and car distribution). As shown in Figure __ (Car Storage Capacity Versus Needs), the additional car storage spaces provided by extension tail tracks is sufficient to accommodate the planned fleet expansion under an uninterrupted car buy.

Reduction Of Headways To Allow For Higher Capacity

Figure ___ (Planned Phasing of Reduced Headway Service and Required Projects) identifies the planned schedule for implementing higher frequency train service, predicated on the capability of operating at headways which are lower than today's. This phasing plan is based on the foregoing analysis of demand and implementation of key projects required for reducing headways. As shown, completion of the wayside train control/system performance modifications (WTC/SPM) in December 1994 will permit BART to operate at a minimum service headway of 135 seconds, down from an average of 180 seconds currently. This translates to an increase in capacity of 30%, from a maximum of 20 trains per hour in one direction to 26. Analysis of ridership indicates, however, that a lower level of service could serve the forecast peak demand. For this reason, it is planned that BART will begin to operate at a minimum scheduled headway of 150 seconds by December 1994 upon completion of WTC/SPM. It is planned that a maximum 20 transbay trains per hour will be operated initially at this headway (i.e., 50 minutes of service at 150 second headways). Up to four transbay trains per hour are to be added under this service level as demand warrants. An advantage of the start of 150 second service in December 1994 is that it allows ample time for BART to refine the higher service level schedule *in advance* of when service to Colma, North Concord, and East Dublin begins (between July and October 1995). Additionally, this phasing provides a *place holder* for the possible start-up of direct Dublin/San Francisco service, should the decision be made to add this new route.

The next service level calls for the implementation of 135 second scheduled headway service. Since no additional projects are required, the decision to start this higher service level would be at the discretion of BART given ridership growth and the need to provide more capacity. The analysis for this SRTP shows that 135 second service will be needed by September 1996 as shown in Figure ___ (Planned Phasing of Reduced Headway Service and Required Projects). Going to this service level, BART would be operating at a maximum 26 transbay trains per hour.

PLANNED PHASING OF REDUCED HEADWAY SERVICE AND IMPLEMENTATION OF REQUIRED PROJECTS

MINIMUM HEADWAY Seconds			PLANNED SERVICE LEVEL START DATE	MAXIMUM TRANSBAY CAPACITY (Trains/ Hour, Peak Direction)		UNFINISHED PROJECTS REQUIRED TO ACHIEVE SERVICE LEVEL	PROJECT COMPLETION DATE
SYSTEM CAPABILITY		PLANNED					
DESIGN	SERVICE	SERVICE		SERVICE CAPABILITY	PLANNED SERVICE	Project Numbers Correspond To Those Presented In "Headway Reduction and Extensions" Chart	
120	180	180	Jun 92	20	17	1. PL/timetable change (faster service).	Jun 92
105	135	150	Dec 94	24	20	2. Brake rate algorithm modifications. 5. M-line WTC/SPM.	Oct 92 Dec 94
		150	Oct 95	24	24		
105	135	135	Sep 96	26	26		
TBD	120	120	Sep 98	30	28	22. Advanced ATC for 120 sec headways.	Jul 98

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With continued growth in ridership, as the result of extensions and service improvements, current analysis shows that a 120 second minimum scheduled headway will be needed by September 1998. The key project for achieving this level of service is the advanced automatic train control (ATC) project which is currently scheduled for completion by July 1998. With this project in place, BART will be able to operate 30 transbay trains per hour in one direction. This is 76% more capacity than is provided as of June 1992. Based on the ridership forecast, a maximum of 28 transbay trains per hour provides a sufficient level of capacity to meet the 1.15 peak period load factor standard.

Central Train Supervision And Expansion Of Online Trains

BART's central control system (CCS) at its Lake Merritt headquarters and wayside equipment located along the trackway and stations provide automated control and supervision of train movements. Improvements to this system were recently completed for the purpose of accommodating higher service levels and resulting higher number of trains which will need to be operated. Three projects remain to be completed before BART can expand the number of online trains. Figure __ (Planned Expansion of Online Trains and Required Projects) identifies these projects and shows the planned build-up of train service.

The central control display board modifications, which is to include the Daly City turnback and yard, is to be installed and ready for service by December 1992, two years in advance of the planned start of 49 train service. The current communication system limits operation of greater than about 50 trains on the system at any one time. The systemwide radio network project addresses this problem and is scheduled to be completed by July 1995, only a few months in advance of the start of 57 train service with the addition of extensions to Colma, North Concord, and East Dublin. The final project, which will allow BART to operate with all the planned phase I extensions and other service improvements, is the enhanced train identification and destination codes project. This will expand the number of train identifiers and possible routings such that more than 60 trains can be operated at any one time. With a December 1994 scheduled completion date, this project will be in place well in advance of the planned start of 61 train service in September 1996.

Extensions Service Phasing

Figure ___ (Planned Start of Extensions Service and Required Projects) identifies the current implementation schedule for each of the phase I extensions. Projects identified in prior sections (i.e., cars, headways, and online trains) are being implemented to accommodate these extensions and for future consideration of implementing phase II extensions (see Figure __, BART Extension Staging Policy). As previously stated, the

PLANNED EXPANSION OF ONLINE TRAINS *
AND IMPLEMENTATION OF REQUIRED PROJECTS

PLANNED MAXIMUM ONLINE TRAINS	PLANNED START DATE	UNFINISHED PROJECTS REQUIRED TO ACHIEVE SERVICE LEVEL Project Numbers Correspond To Those Presented in "Headway Reduction and Extensions" Chart	PROJECT COMPLETION DATE
43	Jul 92		
49	Dec 94	3. Central control display board modifications.	Dec 92
50	Sep 95	8. Systemwide radio network.	Jul 95
57	Oct 95		
61	Sep 96	6. Enhanced train id & destination codes.	Dec 94
63	Mar 97		
67	Mar 98		
71	Sep 98		
75	Jun 02		

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* Includes trains added to achieve planned service headways and to provide service for extensions.

PLANNED START OF EXTENSIONS SERVICE AND IMPLEMENTATION OF REQUIRED PROJECTS

EXTENSION	PLANNED START DATE	INCREMENTAL ONLINE ADDITIONS		UNFINISHED PROJECTS REQUIRED TO ACHIEVE SERVICE LEVEL Project Numbers Correspond To Those Presented In "Headway Reduction and Extensions" Chart	PROJECT COMPLETION DATE
		TRAINS	CARS		
North Concord	Jul 95	1	6		
Colma	Sep 95	0	0		
East Dublin	Oct 95	3	32	9. A-line resignalling 10. A-line electrical capacity increase.	Jul 95 Jul 95
West Pittsburg	Mar 97	2	12		
Warm Springs	Mar 98	4	28		
S.F. Airport	Jun 02	4	46		

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BART EXTENSIONS STAGING POLICY [1]

PHASE	INSIDE CURRENT DISTRICT OR UNDER FUNDING AGREEMENTS
I.	North Concord-West Pittsburg [2]
	Irvington-Warm Springs [8]
	Castro Valley - Dublin [3,8]
	MUNI Metro Extension Project [4]
	Colma-Tanforan-San Francisco Airport [5]
II.	Pittsburg-West Antioch-East Antioch
	Pleasanton-West Livermore-East Livermore [3]
	San Francisco [6]
	San Pablo-Hilltop
	Oakland Airport Connector [7]
III.	San Francisco [6]
	Pinole-Hercules/Rodeo-Crockett
	San Ramon Corridor

NOTES:

1. The several segments shown under each Roman numeral are understood to be implemented concurrently, to the extent that funding is available. BART will be the operator for any new heavy or light rail transit starts or extensions within the three BART counties.
2. To be extended east beyond West Pittsburg as funding permits, per SB 1715 of 1988.

   Third station may be constructed only with funds additional to those identified in MTC Resolution 1876 (as revised in 1989).
4. The San Francisco Project is identified through coordination with the City and County of San Francisco as the MUNI Metro Extension to the CALTRAIN Depot South of Market.
5. Agreement of February 28, 1990 with SamTrans to proceed with SFO extension, subject to BART project approval.
6. Specific San Francisco Project to be identified through coordination with the City and County of San Francisco. Section 29034.5 of the California Public Utilities Code lists an extension of District services and facilities to the northwest section of the City and County of San Francisco as a District service commitment.
7. A people-mover, or some other mode of travel, to the Oakland Airport to be established before or at the same time as an extension of BART to the San Francisco Airport.
8. Funding from Proposition 116 shall not be allocated to the Warm Springs Extension (WSX) until funding for the Dublin-Pleasanton Extension has been guaranteed.

PHASE	OUTSIDE CURRENT DISTRICT [9]
I.	Milpitas
II.	Millbrae-Menlo Park
	Milpitas-San Jose
III.	Menlo Park-San Jose

9. Subject to a satisfactory cost-sharing arrangement with San Mateo and Santa Clara Counties and project approval by BART. Pursuant to Section 29034.5 of the California Public Utilities Code, only non-District funds may be spent by the District for the purpose of extending services and facilities outside of District's January 1, 1971 boundaries until the District meets specified service commitments within the 1971 boundaries.

start of service to East Dublin may result in the addition of a new transbay route. Consideration in terms of headways have been made to accommodate this fifth route, should the decision be made to implement it. At a minimum, however, is the need to upgrade the electrification and modify the signalling between Bay Fair and Lake Merritt stations so that East Dublin bound and departing trains may use this portion of the system. This is based on a planned route between East Dublin and an East Bay station north of Bay Fair yet to be identified. Both these projects are slated for completion by July 1995, three months in advance of the start of East Dublin service.

CHAPTER 4

FISCAL YEAR FORECASTS

AND FINANCIAL PLAN

BART's SRTP financial plan focuses on the District's operating budget for the period FY 1993 through FY 2002. All sources of revenue and expense are considered, as well as sources of financial assistance. The starting point for the financial projections is BART's FY 1993 operating budget. This is the focus of the next section. Subsequent discussion identifies the assumptions upon which the out-year forecasts are based. A no-fare-increase ten year forecast is first presented and annual deficits are identified. This is followed by a second financial forecast which incorporates recommended actions to balance each fiscal year's budget.

FISCAL YEAR 1993 OPERATING BUDGET

BART's operating budget for FY 1993 is summarized in Figure __ (BART Operating Budget For FY 1993). This budget recognizes four key budget influencing factors. *First*, ridership and related revenue from passenger fares are expected to hold at about the same level as FY 1992, reflecting a flattening of ridership growth. *Second*, labor costs match rising expense as called for under the July 1992 contracts with the two largest unions representing BART labor. *Third*, the continuation of the economic recession is expected to result in declining sales tax receipts reflecting dampened consumer spending. *Fourth*, principal payments on revenue bonds recommence in FY 1993 and result in increased debt service which must be absorbed by the operating budget.

Despite these external pressures, BART has adopted an operating budget for FY 1993 with no fare increase, service reductions, layoffs, or deficits. Measures taken to balance BART's FY 1993 operating budget include the formulation of cost containment strategies and project and program options and tradeoffs. Further, a reorientation of schedules is included with resources reapplied to position the organization to avoid deficit spending and assure that highest priority objectives are achieved. These objectives fall under the categories of: service enhancement, system expansion and reinvestment, systemwide cost containment, safety and security measures, and staff skill development.

Ongoing efforts will continue to enhance and expand accurate and timely reporting systems which track performance. The standards against which BART performance is measured are contained in the updated set of objectives for FY 1993. These are summarized in Figure __ (FY 1993 Operating Performance Indicators and Standards). [The detailed set of program objectives for FY 1993 which supports attainment of the performance standards is included as Appendix B.] BART's FY 1993 operating budget supports achievement of the operating performance standards, and is based on the following service parameters and assumptions.

FY 1993 Service Parameters and Assumptions

Figure __

BART OPERATING BUDGET

FOR FY 1993

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Refer To 1992 SRTP Financial Forecasts

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Figure __

FY 1993 OPERATING PERFORMANCE INDICATORS AND STANDARDS

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Service will be improved in FY 1993 despite cost reduction measures. Train run times will be faster (an improvement which took effect on June 22, 1992) and the same frequency of rail service is to be provided relative to the prior fiscal year. The new train schedule incorporates *timed meets* at MacArthur and 12th Street stations during two-route *X* service (i.e., night service and all day Sunday) to minimize passenger waiting. Also, there is to be a significant BART police presence on trains, particularly during night service. The FY 1993 operating budget also supports vehicle reliability improvements and the *Mint Car Program* which calls for the refurbishment of 100 of BART's A- and B-cars in FY 1993.

FY 1993 Ridership and Revenues

BART's FY 1993 operating budget assumes continuation of the recession with a recovery taking hold no sooner than mid-fiscal year. Ridership under this economic condition is assumed to grow by about 1% over FY 92, or to 73.3 million riders. The budget also assumes increased revenue from the BART/MUNI Fast Pass agreement due to BART ridership growth within San Francisco (for Fast Pass trips), and an anticipated increase in the price of the Fast Pass from $30 to $32 effective August 1992.

Interest earnings, which include interest earned on revenue bonds, are budgeted at $6.6 million, an increase of $2.3 million relative to the FY 1992 budget. Other operating revenue shows a budgeted decrease, from $3.4 million to $3.0 million, due mainly to the cancellation of the Host International concessions contract. In response to this, efforts in FY 1993 will focus on realizing greater revenue from existing sources (i.e., pay telephones, other concession, fiber optics, rentals, leases, fines, forfeitures, etc.) and identifying new sources of non-fare revenue.

FY 1993 Staffing

The FY 1993 operating budget supports BART's emphasis on improving skills and overall employee development. A philosophy of employee empowerment will be stressed and backed by programs which reward excellent performance. As a cost containment measure, close attention will be given to use of overtime and the rate of employee absenteeism. A new *Audit Hotline* will be established for the anonymous reporting of allegations of fraud, waste, or abuse within the organization.

FY 1993 Operating Expense

Net operating labor costs are budgeted to rise 1.4% over the FY 1992 budget despite the 4.1% wage increase (in accordance with the July 1992 labor contract). Revising employee health care coverage to all-HMO services is the key factor responsible for this cost savings. BART's operating staff headcount is budgeted at 2,471, unchanged from last fiscal year. Additional cost savings in FY 1993 versus last fiscal year are to be realized by the restructuring of BART express bus routes and discontinuance of the AC Transit transfer payment. The FY 1993 operating budget contains no allocations to capital. [Allocations from operating sources made last fiscal year to rehabilitation programs for A- and B-cars and for stations are discontinued in FY 1993. These programs are now funded through capital program sources.] The budget does, however, contain a substantial $8.0 million increase over the FY 1992 budget for debt service. This reflects the repayment schedules for the 1990 bond issue.

FY 1993 Financial Assistance

Property tax receipts in FY 1993 are expected to be $12.0 million, an increase of $1.7 million over the prior fiscal year. In contrast to this favorable gain is the decline in sales tax assistance due to the recession. *BART's FY 1993 budgeted sales tax of $108.5 million is 0.5% less than the FY 1991 actual of $109.0 million.*

FY 1993 Key Financial Indicators

BART's FY 1993 operating budget is balanced at fares which have not increased since 1986. The cost containment measures and focus of BART's overall program is expected to result in the achievement of key financial indicators at, or better, than those levels for FY 1992. The budgeted rail farebox ratio is 46.8%, up from 45.6% last fiscal year. Similarly, the system operating ratio is budgeted this fiscal year at 51.8% versus 49.5% last year; and the rail cost per passenger mile shows a favorable decrease from 22.7¢ last year to 22.3¢ in the current year's budget.

FINANCIAL FORECASTS FOR FY 1994 THROUGH FY 2002

Forecasts of expense, revenue, and financial assistance were developed based on prior-year work completed for the 1991 SRTP and the FY 1993 budget process. Two scenarios were developed:

- No-Fare Increase Scenario
- 5% Annual Fare Increase (beginning in FY 1994) Scenario

These are summarized in Figure __ (1992 Ten Year Plan Financial Forecasts, No Fare Increase Scenario) and Figure __ (1992 Ten Year Plan Financial Forecasts, 5% Annual Fare Increase Scenario).

Operating Expense

Operating expense projections for the nine out-years were made with the BART Operating and Maintenance (O&M) Cost Model which was developed for the extensions service planning effort, and recently updated and revised for SRTP planning purposes. Fiscal year expense is estimated in current year dollars and is based on forecasts for 25 key operating parameters for each of the nine forecast years. Cost relationships are based primarily on the FY 1991 budget. Adjustments were made to reflect the FY 1993 operating budget and more recent operating experience. Expense forecasts reflect the service improvements discussed in previous sections of this document. The assumed annual inflation factors used for estimating components of expense are based on Bay Area price increases and forecasts and include:

a. Most non-labor costs are inflated at 3.5%.

b. Labor expense is inflated at 4.1% for FY 1994 reflecting the current contract. For FYs 1995 and 1996, rates of 4.4% and 4.8% are used, respectively. A 5.0% labor inflation rate is applied to fiscal years 1995 through 2002.

c. Express bus expense is based on the current Laidlaw contract, and assumes a 3.5% annual inflation factor for agreements after the current contract expires in December 1993. It is assumed that efficiency improvements are made in FY 1993 such that a 10% savings is realized. Express bus service is assumed to be discontinued when parallel extension rail service begins. A 25% express bus service cutback is assumed to take place in FY 96 when rail service to North Concord and East Dublin begins. An additional 15% reduction is assumed in FY 97 when rail service to West Pittsburg begins.

d. Shuttle bus expense and transfer payments to MUNI are a direct model output. Note that there are no provisions for transfer payments to AC Transit.

e. Electric power expense is a direct model output based on the service level parameters.

f. Other non-labor expense is derived by subtracting the above items from total forecast operating expense (as adjusted by express bus service cutbacks).

* Financial forecasts reflect current PERS rate and contain no allowance for ADA impact on operating budget.

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Figure
1992 TEN YEAR PLAN FINANCIAL FORECASTS, NO FARE INCREASE SCENARIO

	FY 93 BUDGET	FY 94 F'CAST	FY 95 F'CAST	FY 96 F'CAST	FY 97 F'CAST	FY 98 F'CAST	FY 99 F'CAST	FY 00 F'CAST	FY 01 F'CAST	FY 02 F'CAST	AVERAGE ANNUAL COMPOUND GROWTH
ASSUMED FARE INCREASES	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
REVENUES ($millions)											
GROSS RAIL REVENUE	112.9	119.1	123.2	133.9	144.1	149.9	154.3	156.9	158.7	166.1	4.4%
EXPRESS BUS & SHUTTLES	1.0	1.3	1.5	1.5	1.4	1.4	1.5	1.6	1.6	1.7	6.1%
LESS DISCOUNTS, etc.	(13.3)	(13.9)	(14.4)	(15.6)	(16.8)	(17.5)	(18.0)	(18.3)	(18.5)	(19.4)	4.3%
NET PASSENGER REVENUE	100.6	106.5	110.3	119.8	128.6	133.8	137.8	140.2	141.9	148.5	4.4%
INTEREST REVENUE	6.6	6.7	6.8	6.9	7.0	7.1	7.2	7.3	7.3	7.4	1.4%
OTHER OPERATING REVENUE	3.0	3.3	3.5	3.8	4.1	4.4	4.7	5.1	5.4	5.8	7.5%
SUBTOTAL NON-FARE REVENUE	9.6	10.0	10.3	10.7	11.1	11.5	11.9	12.3	12.8	13.3	3.6%
TOTAL OPERATING REVENUES	110.2	116.5	120.6	130.5	139.7	145.3	149.7	152.5	154.6	161.7	4.3%
EXPENSES ($millions)											
NET LABOR	153.3	159.3	168.5	197.6	215.1	232.9	252.9	266.9	281.5	298.6	7.7%
EXPRESS BUS SERVICE	6.5	6.0	6.1	4.7	4.1	4.3	4.4	4.6	4.8	4.9	-3.1%
SHUTTLE SERVICE	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	7.3%
AC TRANSFER PAYMENT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
MUNI TRANSFER PAYMENT	1.6	1.8	2.0	2.2	2.4	2.5	2.7	2.8	2.9	3.1	7.9%
POWER	21.7	22.3	23.3	28.8	32.0	34.6	37.2	38.9	40.7	42.9	7.9%
OTHER NON-LABOR	29.6	31.9	33.5	39.0	42.2	45.3	48.5	50.5	52.6	55.2	7.2%
NEW INITIATIVES	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
TOTAL OPERATING EXPENSES	213.0	221.6	233.7	272.7	296.3	320.0	346.2	364.2	382.9	405.2	7.4%
OPERATING DEFICIT ($millions)	(102.7)	(105.1)	(113.1)	(142.2)	(156.6)	(174.7)	(196.5)	(211.7)	(228.3)	(243.5)	10.1%
FINANCIAL ASSISTANCE ($millions)											
SALES TAX (BART 75%)	108.5	112.3	116.2	120.3	124.5	128.8	133.3	138.0	142.8	147.8	3.5%
PROPERTY TAX	12.0	12.9	13.9	14.9	16.1	17.3	18.6	19.9	21.4	23.0	7.5%
STA	0.0	4.7	5.2	5.7	6.6	7.1	7.5	7.8	8.2	8.9	
TDA STATE ASSISTANCE	0.5	0.5	0.5	0.6	0.6	0.6	0.7	0.7	0.7	0.8	5.0%
DEBT SERVICE ALLOCATIONS	(18.3)	(19.5)	(19.7)	(19.8)	(19.9)	(20.0)	(20.1)	(20.2)	(20.3)	(28.4)	4.3%
OTHER CAPITAL ALLOCATIONS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
NET FINANCIAL ASSISTANCE	102.7	110.8	116.2	121.7	127.8	133.8	139.9	146.2	152.9	160.1	5.1%
FINANCIAL RESULT ($millions)	0.0	5.8	3.1	(20.5)	(28.8)	(40.9)	(56.6)	(65.5)	(75.4)	(83.3)	
FINANCIAL INDICATORS											
RAIL FAREBOX RATIO	49%	49%	48%	45%	44%	42%	40%	39%	37%	37%	-3.0%
SYSTEM FAREBOX RATIO	47%	48%	47%	44%	43%	42%	40%	38%	37%	37%	-2.8%
SYSTEM OPERATING RATIO	52%	53%	52%	48%	47%	45%	43%	42%	40%	40%	-2.8%
RAIL COST/PASSENGER MILE (cents)	22.34	22.31	22.51	24.48	24.85	25.85	27.27	28.26	29.30	29.21	3.0%
PASSENGER MILES (millions)	915.8	956.8	1,001.1	1,084.4	1,164.4	1,209.9	1,242.1	1,261.0	1,279.1	1,357.9	4.5%
RAIL PASSENGERS (millions)	73.3	76.7	79.5	84.7	89.9	92.7	94.7	96.2	97.5	101.7	3.7%
AVERAGE WEEKDAY TRIPS (thousands)	253	264	274	292	310	320	327	332	336	351	3.7%
AVERAGE RAIL FARE (net)	$1.36	$1.36	$1.35	$1.38	$1.40	$1.41	$1.42	$1.41	$1.42	$1.43	0.6%
TRIPS/EQ OP EMPLOYEE (thousands)	29.7	30.7	31.2	29.4	30.0	29.9	29.4	29.7	30.0	30.9	0.4%
PASS MI/EQ OP EMPLOYEE (thousands)	370.6	383.3	393.2	376.5	388.1	390.4	385.3	389.2	393.0	412.5	1.2%

* Financial forecasts reflect current PERS rate and contain no allowance for ADA impact on operating budget.

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Figure
1992 TEN YEAR PLAN FINANCIAL FORECASTS, 5% ANNUAL FARE INCREASE SCENARIO

	FY 93 BUDGET	FY 94 F'CAST	FY 95 F'CAST	FY 96 F'CAST	FY 97 F'CAST	FY 98 F'CAST	FY 99 F'CAST	FY 00 F'CAST	FY 01 F'CAST	FY 02 F'CAST	AVERAGE ANNUAL COMPOUND GROWTH
ASSUMED FARE INCREASES	0.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	
REVENUES ($millions)											
GROSS RAIL REVENUE	112.9	125.0	135.8	155.0	175.1	191.3	206.8	220.8	234.5	257.7	9.6%
EXPRESS BUS & SHUTTLES	1.0	1.3	1.5	1.5	1.4	1.4	1.5	1.6	1.6	1.7	6.1%
LESS DISCOUNTS, etc.	(13.3)	(14.6)	(15.8)	(18.1)	(20.4)	(22.3)	(24.1)	(25.7)	(27.3)	(30.0)	9.5%
NET PASSENGER REVENUE	100.6	111.8	121.5	138.4	156.1	170.4	184.2	196.7	208.8	229.4	9.6%
INTEREST REVENUE	6.6	6.7	6.8	6.9	7.0	7.1	7.2	7.3	7.3	7.4	1.4%
OTHER OPERATING REVENUE	3.0	3.3	3.5	3.8	4.1	4.4	4.7	5.1	5.4	5.8	7.5%
SUBTOTAL NON-FARE REVENUE	9.6	10.0	10.3	10.7	11.1	11.5	11.9	12.3	12.8	13.3	3.6%
TOTAL OPERATING REVENUES	110.2	121.8	131.8	149.1	167.1	181.9	196.1	209.0	221.6	242.6	9.2%
EXPENSES ($millions)											
NET LABOR	153.3	159.3	168.5	197.6	215.1	232.9	252.9	266.9	281.5	298.6	7.7%
EXPRESS BUS SERVICE	6.5	6.0	6.1	4.7	4.1	4.3	4.4	4.6	4.8	4.9	3.1%
SHUTTLE SERVICE	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	7.3%
AC TRANSPER PAYMENT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
MUNI TRANSPER PAYMENT	1.6	1.8	2.0	2.2	2.4	2.5	2.7	2.8	2.9	3.1	7.9%
POWER	21.7	22.3	23.3	28.8	32.0	34.6	37.2	38.9	40.7	42.9	7.9%
OTHER NON-LABOR	29.6	31.9	33.5	39.0	42.2	45.3	48.5	50.5	52.6	55.2	7.2%
NEW INITIATIVES	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
TOTAL OPERATING EXPENSES	213.0	221.6	233.7	272.7	296.3	320.0	346.2	364.2	382.9	405.2	7.4%
OPERATING DEFICIT ($millions)	(102.7)	(99.8)	(101.9)	(123.5)	(129.1)	(138.1)	(150.1)	(155.3)	(161.4)	(162.6)	5.2%
FINANCIAL ASSISTANCE ($millions)											
SALES TAX (BART 75%)	108.5	112.3	116.2	120.3	124.5	128.8	133.3	138.0	142.8	147.8	3.5%
PROPERTY TAX	12.0	12.9	13.9	14.9	16.1	17.3	18.6	19.9	21.4	23.0	7.5%
STA	0.0	4.7	5.2	5.7	6.6	7.1	7.5	7.8	8.2	8.9	
TDA STATE ASSISTANCE	0.5	0.5	0.5	0.6	0.6	0.6	0.7	0.7	0.7	0.8	5.0%
DEBT SERVICE ALLOCATIONS	(18.3)	(19.5)	(19.7)	(19.8)	(19.9)	(20.0)	(20.1)	(20.2)	(20.3)	(20.4)	1.3%
OTHER CAPITAL ALLOCATIONS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
NET FINANCIAL ASSISTANCE	102.7	110.8	116.2	121.7	127.8	133.8	139.9	146.2	152.9	160.1	5.1%
FINANCIAL RESULT ($millions)	0.0	11.0	14.3	(1.8)	(1.3)	(4.3)	(10.3)	(9.0)	(8.5)	(2.4)	
FINANCIAL INDICATORS											
RAIL FAREBOX RATIO	49%	52%	53%	52%	53%	54%	54%	55%	55%	57%	1.8%
SYSTEM FAREBOX RATIO	47%	50%	52%	51%	51%	53%	53%	54%	55%	57%	2.0%
SYSTEM OPERATING RATIO	52%	55%	56%	55%	56%	57%	57%	57%	58%	60%	1.6%
RAIL COST/PASSENGER MILE (cents)	22.34	22.31	22.51	24.48	24.85	25.85	27.27	28.26	29.30	29.21	3.0%
PASSENGER MILES (millions)	915.8	956.8	1,001.1	1,084.4	1,164.4	1,209.9	1,242.1	1,261.0	1,279.1	1,357.9	4.5%
RAIL PASSENGERS (millions)	73.3	76.7	79.5	84.7	89.9	92.7	94.7	96.2	97.5	101.7	3.7%
AVERAGE WEEKDAY TRIPS (thousands)	253	264	274	292	310	320	327	332	336	351	3.7%
AVERAGE RAIL FARE (net)	$1.36	$1.43	$1.49	$1.60	$1.70	$1.81	$1.91	$2.01	$2.10	$2.22	5.6%
TRIPS/EQ OP EMPLOYEE (thousands)	29.7	30.7	31.2	29.4	30.0	29.9	29.4	29.7	30.0	30.9	0.4%
PASS MI/EQ OP EMPLOYEE (thousands)	370.6	383.3	393.2	376.5	388.1	390.4	385.4	389.2	393.0	412.5	1.2%

Based on the above assumptions combined with the planned expansion of service, total operating expense (Figure __, Annual Operating Expense) is projected to increase at an average rate of 7.2% annually, from $213.0 million in FY 1993 to $405.2 million in FY 2002. This is 14% less than the $471.5 million estimate identified in last year's SRTP. [The higher estimate made last year was based on a maximum average *peak hour* load factor of 1.15. This is more stringent than the currently adopted policy which calls for a maximum average load factor of 1.15 during the entire *peak period*, each of which lasts two and one-half hours.]

Since labor costs constitute between 72% to 74% of BART's operating expense, this important line item is shown separately in Figure __ (Annual Operating Expense). This expense, which is forecast to increase at an average annual rate of 7.7% reflects both the effects of inflation as well as staffing increases required to support higher service levels. On an operating equivalent employee basis, BART's workforce is forecast to grow by about a third, from 2,471 operating positions in FY 1993 to 3,274 positions in FY 2002. In addition to these operating positions, are approximately 250 positions supported by BART's capital program. Each fiscal year's operational staffing requirements are shown in Figure ___ (Equivalent Operating Employees). When matched against gains in passenger miles, FY 2002 shows an 11.3% increase in the number of annual passenger miles per equivalent employee versus the FY 1993 budget (Figure __, Passenger Miles Per Equivalent Operating Employee).

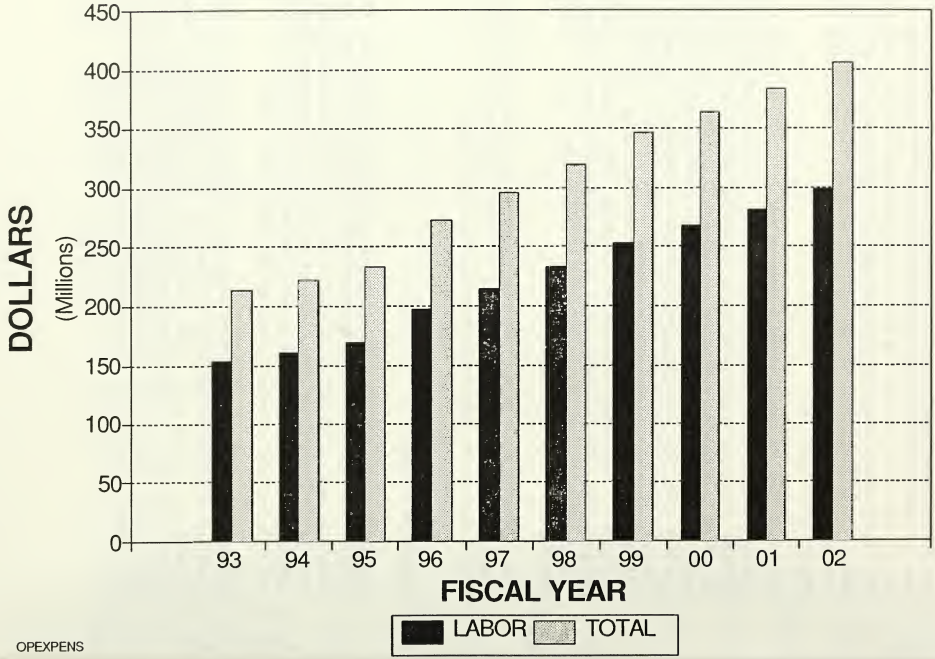
Note that, as shown in Figure __ (Annual Operating Expense), express bus expense is forecast to decrease from $6.5 million in FY 1993 to $4.9 million in FY 2002, reflecting service cutbacks as parallel rail service begins on extensions.

Passenger Revenue

Model output regarding demand and average net rail fare per trip (Figure _, Total Annual Ridership and Figure _, Net Average Rail Fare Per Trip) provide the bases for estimating passenger revenue for each fiscal year in the current ten year period. Gross rail fare revenue and discounts are estimated using the historical relationships among these fare components. Express bus revenue estimates are based on 1991 SRTP estimates, and include the effect of service cutbacks as extensions come on line.

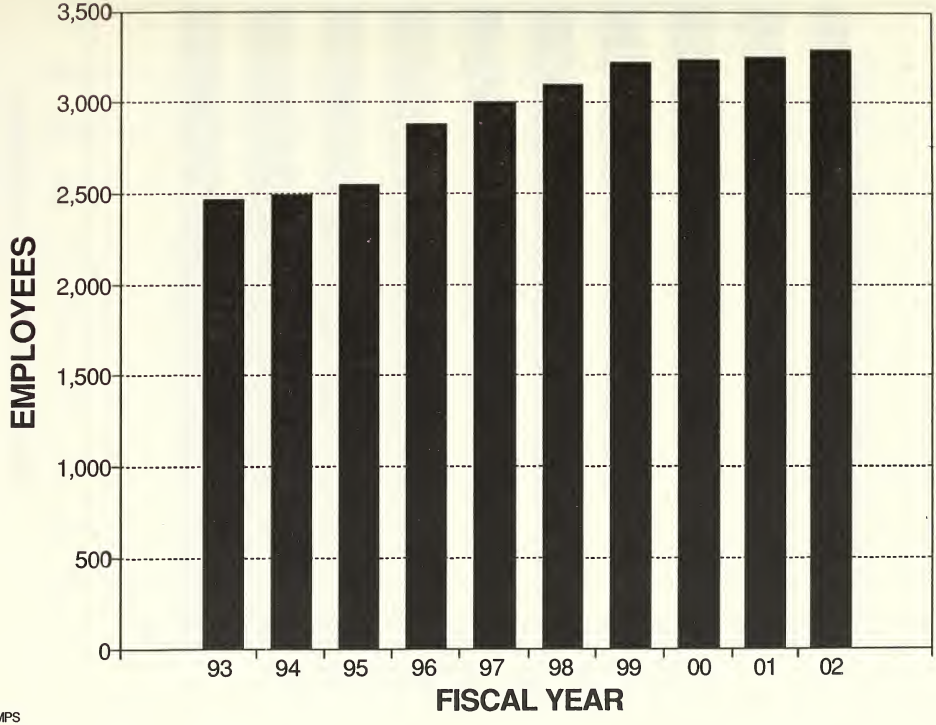
To establish a basis for discussing future fare increases and other budget-balancing measures, forecasts for passenger revenue were first made under a *no-fare increase scenario* (i.e., holding BART's 1986 fare structure constant through FY 2002). Without any fare increases, net passenger revenue starts out at the FY 1993 budgeted level of $100.6 million and increases at an average annual rate of 4.4% (due to ridership growth and increasing average fares as extensions come on line) to $148.5 million in FY 2002

ANNUAL OPERATING EXPENSE



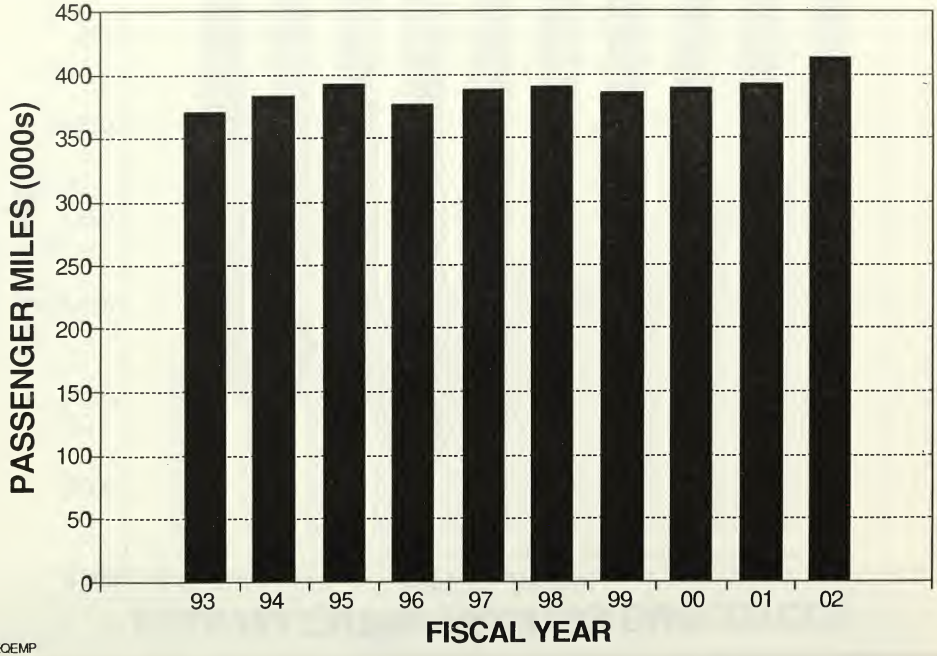
OPEXPENS

EQUIVALENT OPERATING EMPLOYEES



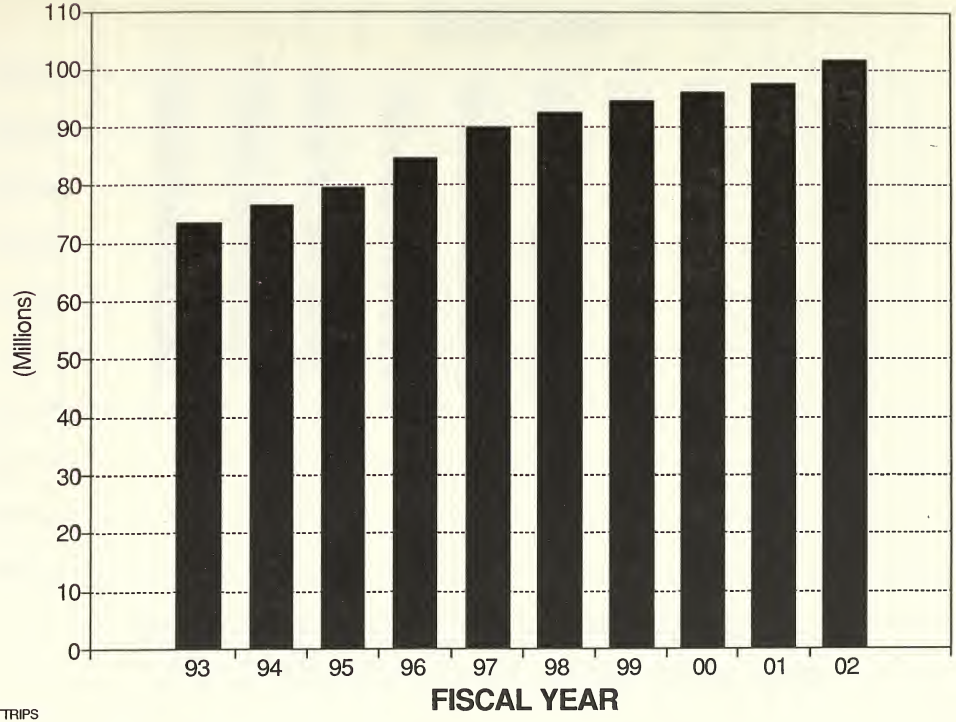
EQEMPS

PASSENGER MILES PER EQUIVALENT OPERATING EMPLOYEE



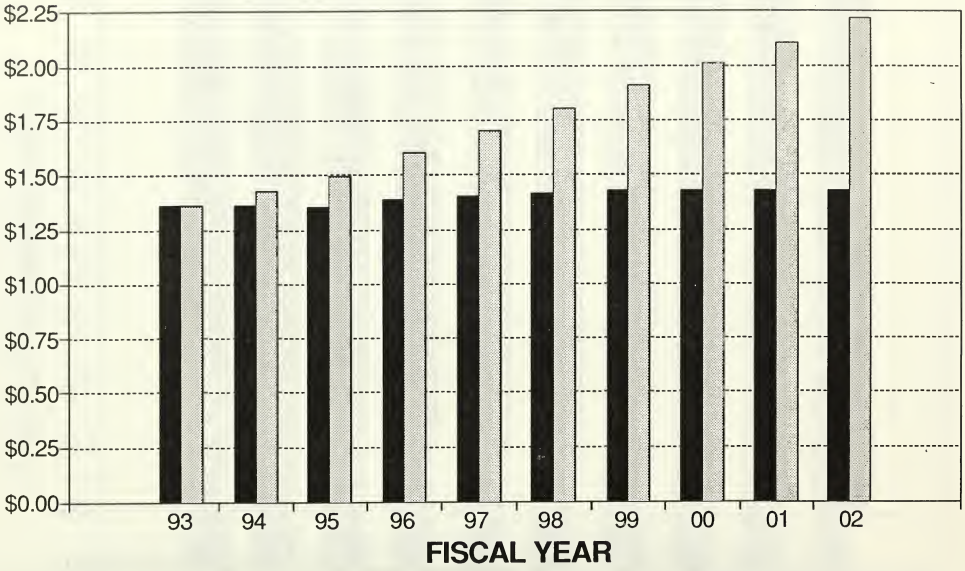
PMEQEMP

TOTAL ANNUAL RIDERSHIP



TOTTRIPS

NET AVERAGE RAIL FARE PER TRIP WITH AND WITHOUT FARE INCREASES



AVGFARE

(Figure __, Annual Operating Revenue, No Fare Increase). For comparison purposes, a *5% annual fare increase scenario* was developed as a means of keeping fares in line with inflation (Figure __, Annual Operating Revenue, 5% Annual Fare Increase). This philosophy of fare increases is widely used in Canadian transit systems (as prescribed by law), and was first presented in BART's 1991 SRTP. *It is assumed that no erosion of ridership will occur at this low level of increase.* With a 5.0% annual fare increase beginning in FY 1994, it is estimated that by the year 2002 annual net passenger fare revenue will amount to $229.4 million as shown in Figure _ (Annual Operating Revenue, 5% Annual Fare Increase). This is 55% higher than under the no-fare increase scenario. [Both the no-fare increase and 5% annual fare increase scenarios will be discussed in greater detail below, relative to the need to balance the annual operating budgets.]

Non-Fare Revenue

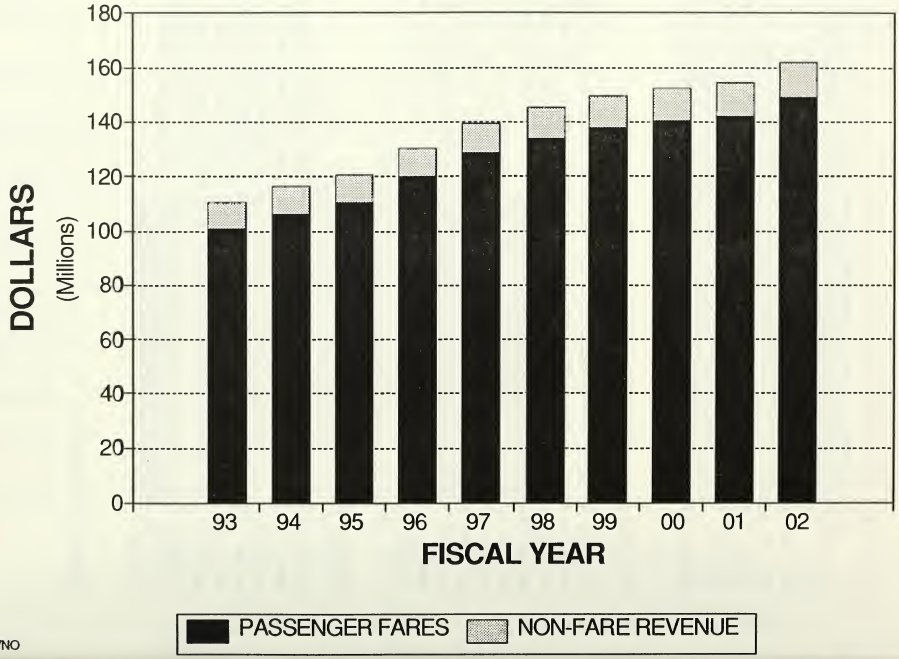
Non-fare operating revenue sources include interest on investments and miscellaneous other operating revenues which come from agreements and/or fees for concessions, advertising, fiber optics, rentals, parking, fines and forfeitures, and joint development. It is assumed that investments will generate interest at a conservative 5.0% rate, further reduced by declining interest earnings on the 1991 revenue bonds. All other operating revenue sources are assumed to increase by 7.5% annually. This rate reflects efforts to generate additional revenue from new and innovative sources. The level of non-fare is the same for both the no-fare increase and 5% fare increase scenarios, and is shown graphically in Figure __ (Annual Operating Revenue, No Fare Increase) and Figure _ (Annual Operating Revenue, 5% Annual Fare Increase).

Operating Deficits

BART's operating deficit is the result of subtracting total operating expense from total operating revenue. For each of the forecast years, these are the amounts which must be made up by sources of financial assistance, as discussed in the next section. As shown in Figure _ (Annual Operating Deficit, Before Application of Financial Assistance), the budgeted operating deficit for FY 1993 is $102.7 million, all of which is provided by taxes and other sources. With no increase in fares, BART's operating deficit is projected to grow over the decade at an average annual rate of 10.1%, ending at $243.5 million in FY 2002. Should fares be increased 5.0% each year starting in FY 1994, the deficit is forecast to grow to $162.6 million, or by 5.2% each year.

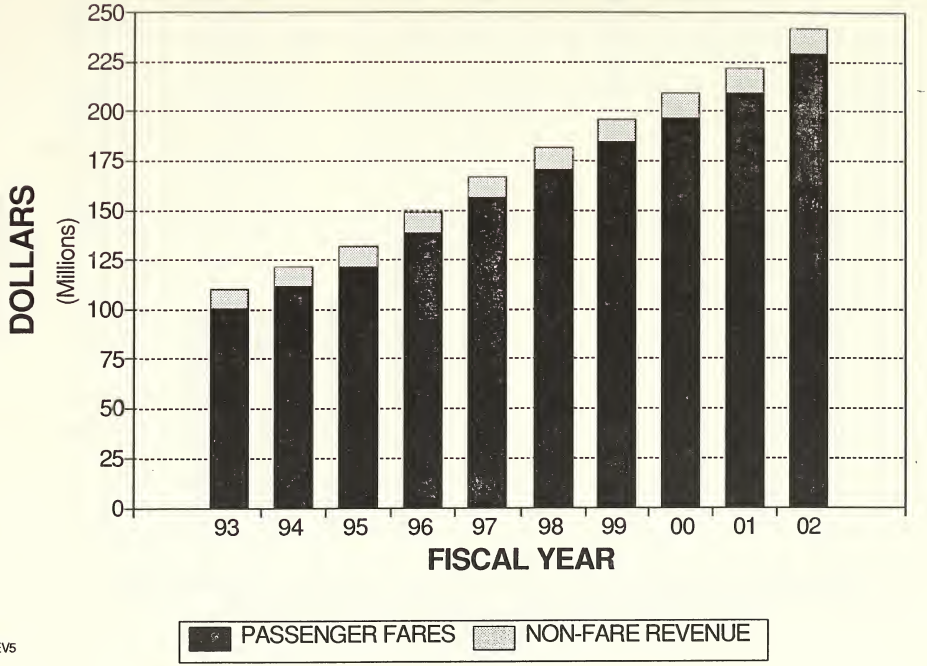
Financial Assistance

ANNUAL OPERATING REVENUE
NO FARE INCREASE



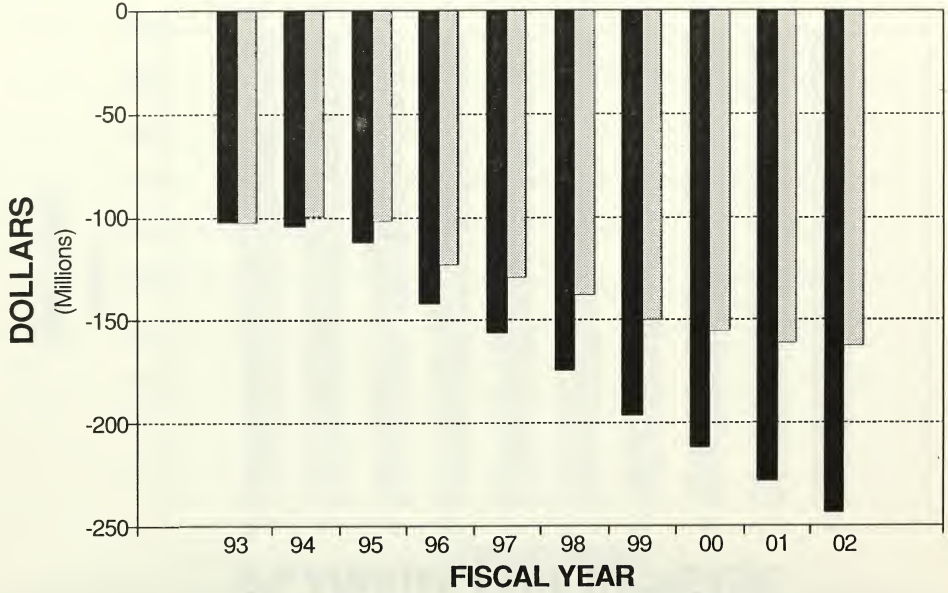
OPREVNO

ANNUAL OPERATING REVENUE
5% ANNUAL FARE INCREASE



OPREV5

ANNUAL OPERATING DEFICIT
BEFORE APPLICATION OF ASSISTANCE



DEFICIT

The largest source of financial assistance currently available to BART is the 75% share the District receives of the ½¢ sales tax in the three-BART counties. Starting at the lower base of $108.5 million for FY 1993 (0.5% lower than FY 1991 actual receipts), reflecting the impact of the recession, it is projected that BART can expect to receive $147.8 million in FY 2002. This assumes a conservative 3.5% annual increase over the ten year period.

Financial assistance through property taxes in the three-BART counties is forecast to increase at an average annual rate of 7.5%. This is based on historical trends for BART property tax receipts, which, on average, have increased between 6% and 11% annually. At the assumed rate and starting at the budgeted $12.0 million in FY 1993, BART is projected to receive $23.0 million in property tax assistance in FY 2002.

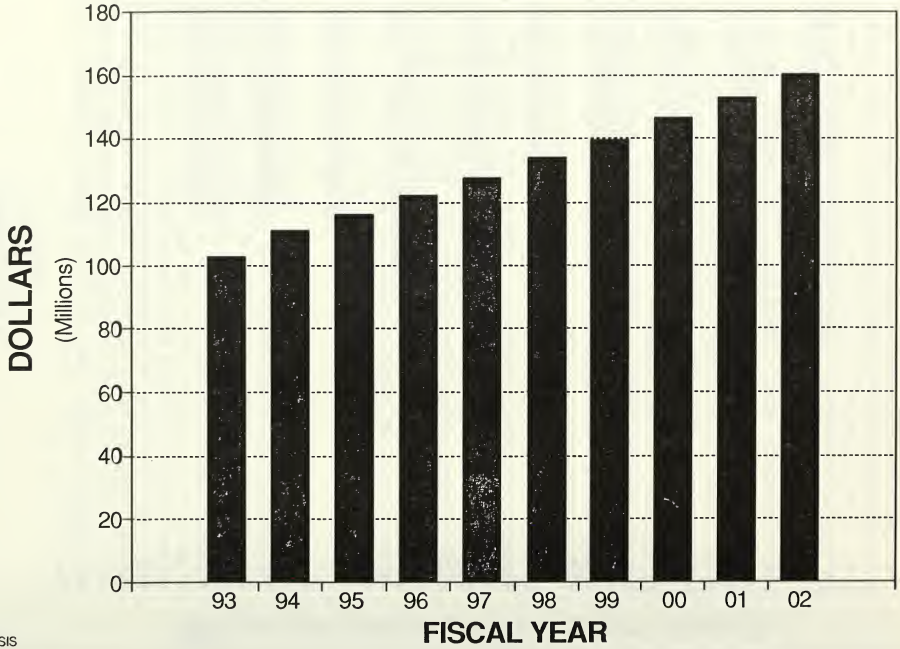
Other sources of financial assistance include STA and TDA state assistance. These estimates have been carried over from last year's SRTP, and together these two sources of assistance are expected to provide a maximum of $9.7 million in FY 2002, from a base of $5.2 million in FY 1994 (BART's FY 1993 operating budget includes $0.5 million in TDA assistance and no assistance from STA).

BART accounting practices include taking debt service allocations and other capital allocations net of financial assistance. Following in this practice, BART's debt service allocation is a fixed amount based on repayment schedules for revenue bonds. [This does not include the original General Obligation Bonds which are funded through capital program sources.] Based on the schedules for the 1990 and 1991 revenue bonds, debt service allocations from the operating budget start out at $18.3 million in FY 1993 and grow at an average rate of 1.3% per year to $20.4 million in FY 2002. Annual financial assistance net of debt service allocations are shown in Figure ___ (Annual Financial Assistance Net of Debt Service Allocations).

Financial Result

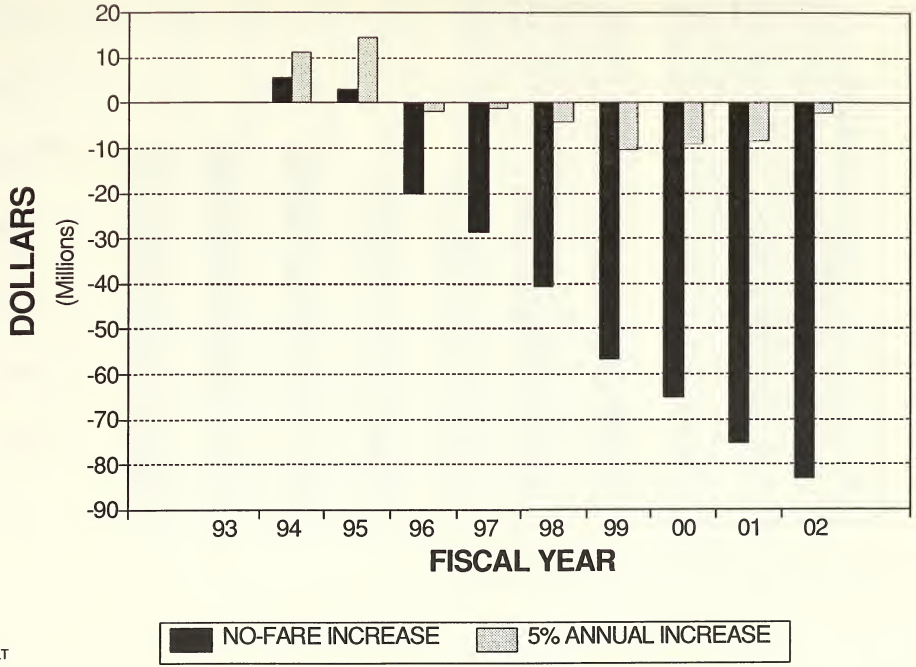
The operating budget forecast financial result is equal to the operating deficit (a negative value) plus financial assistance. As shown in Figure __ (Annual Financial Result, Total Income Less Expense), the no-fare increase scenario starts out balanced in FY 1993 and shows surpluses of $5.8 million in FY 1994 and $3.1 million in FY 1995. With the start of service to Colma, North Concord, and East Dublin in FY 1996, expense outpaces sources of income resulting in a $20.5 million deficit. This deficit is forecast to grow to $83.3 million in FY 2002. A 5.0% fare increase starting in FY 1994 would offset this deficit to manageable levels *except* for the period FY 1999 through FY 2001 when an annual deficit between $8.5 million and $10.3 million is forecast. The increase in revenue with the Airport extension offsets the incremental operating expense, thus reducing the deficit to $2.4 million in FY 2002.

ANNUAL FINANCIAL ASSISTANCE NET OF DEBT SERVICE ALLOCATIONS



FINASSIS

ANNUAL FINANCIAL RESULT
TOTAL INCOME LESS EXPENSE



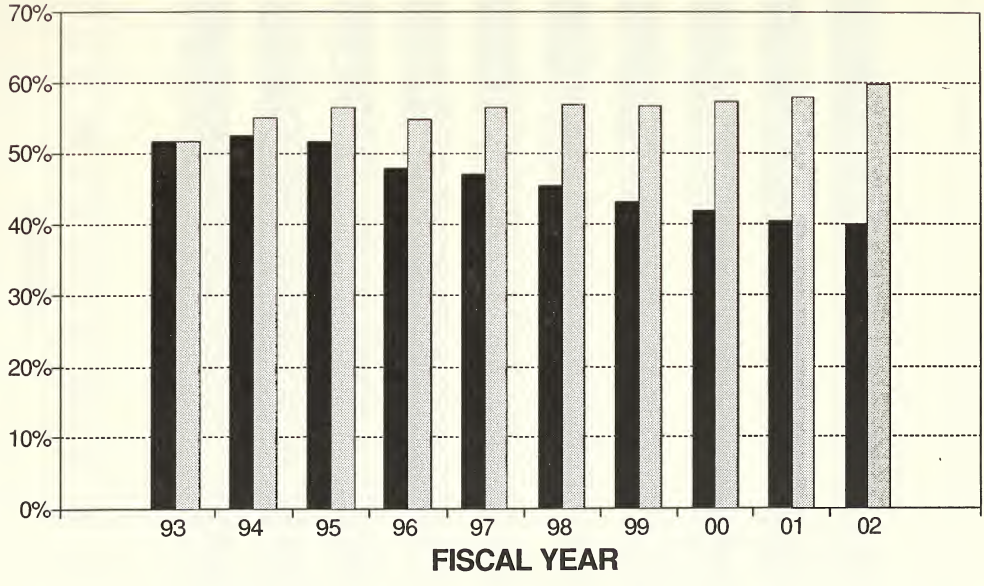
RESULT

Financial Performance Indicators

Financial performance under the no-fare increase scenario reflects erosion of fare income relative to inflated expense. By comparison, a 5% annual fare increase beginning in FY 1994 helps BART to maintain the current policy to achieve a minimum 50% operating ration. Operating ratios for both scenarios are shown in Figure __ (System Operating Ratio, With and Without Fare Increases). As shown, it is forecast that without any fare increases BART's operating ratio will decline from the FY 1993 budgeted level of 52% to below the policy standard in FY 1996 when it if forecast to be 48%. Continued erosion is forecast to occur such that by FY 2002 the operating ratio is 40%. With annual 5% fare increases beginning in FY 1994, BART's operating ratio is forecast to increase to 60% by FY 2002.

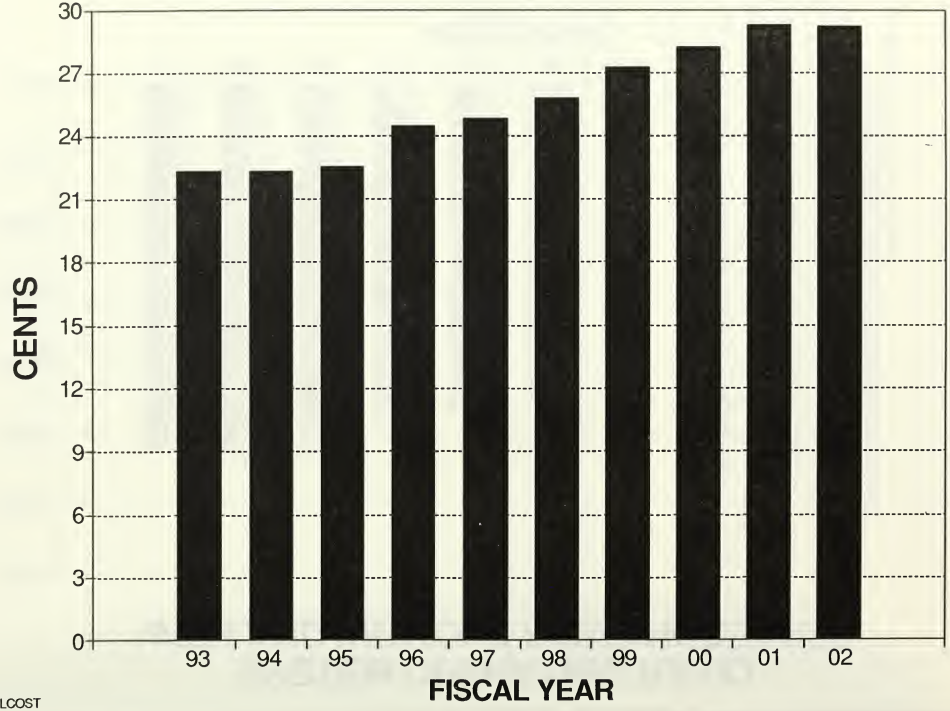
Since no erosion of ridership is assumed with modest 5% fare increases, there is no difference between the two scenarios with regard to rail cost per passenger mile. The forecast levels for this financial indicator are shown in Figure _ (Rail Cost Per Passenger Mile). As shown, rail cost per passenger mile are forecast to increase from a budgeted 22.3¢ in FY 1993 to 29.2¢ by FY 2002. Note that these costs are in current (inflated) dollars and average a 3.0% annual increase. *This is less than the assumed rate of inflation* which means that, on a unit cost basis, BART is forecast to achieve greater efficiency as the system expands and ridership increases (Figure __, Average Weekday Ridership).

SYSTEM OPERATING RATIO
WITH AND WITHOUT FARE INCREASES



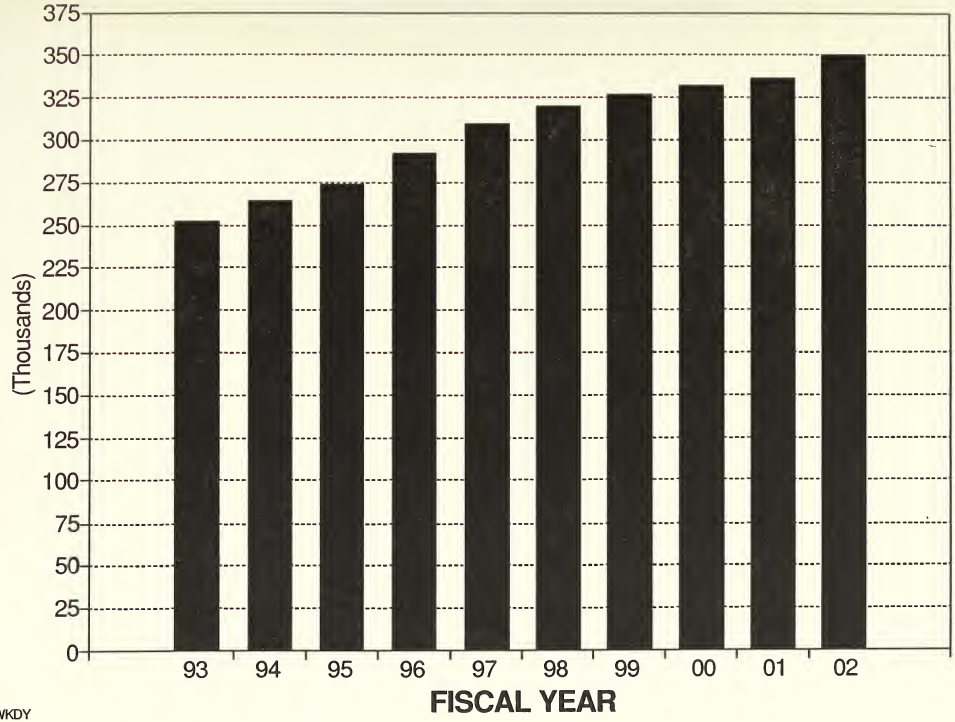
OPRAT

RAIL COST PER PASSENGER MILE



RAILCOST

AVERAGE WEEKDAY RIDERSHIP



AVGWKDY

APPENDICES

APPENDIX A

MASTER SPREADSHEET

BART SERVICE EXPANSION

AND KEY SYSTEM COMPONENTS

HEADWAY REDUCTION

AND EXTENSIONS

BART SERVICE EXPANSION AND KEY SYSTEM COMPONENTS
HEADWAY REDUCTION AND EXTENSIONS
FILE: C:\SRTP\FY92\SERVICE\SERVPLN3
07/09/92

PAGE 1
RANGE = A1..O61
TOTAL RANGE = A1..CD63

*** ENTER POLICY LOAD FACTOR HERE = 1.15 ***
*** LOAD FACTORS DURING CAR REHAB = 1.15 1.15 ***

PADRON MODEL RIDERSHIP AND DERIVED FIGURES

FY & QTR ENDING		EVENT AND/OR SERVICE DESCRIPTION	MINIMUM HEADWAY CAPBLTY seconds	MAXIMUM TRAINS/HR TIED	PLN'D	BASE RIDERSHIP AVGWKDY	PKHOUR	%PKHR	INTERPOLATED FIGURES AVGWKDY	PKHOUR	%PKHR	MAX SCREENLINE TRIP CONVERSION TRP@.1150	EBP@.0133	TOTAL
90-Mar 90	Base	Actual servlce	180	20	17			actual	237,918			29,031	3,129	34,154
90-Jun 90	Base	Actual servlce	180	20	17			actual	244,168			29,236	3,176	34,412
91-Sep 90	Base	Actual servlce	180	20	17			actual	248,843			29,431	3,323	32,754
91-Dec 90	Base	Actual servlce	180	20	17			actual	246,504			27,975	3,313	31,488
91-Mar 91	Base	Actual servlce	180	20	17			actual	241,242			29,180	3,264	32,444
91-Jun 91	Base	Actual servlce	180	20	17			actual	249,747			28,410	3,283	31,693
92-Sep 91	Base	Actual servlce	180	20	17			actual	249,494			28,619	3,349	31,968
92-Dec 91	Base	Actual servlce	180	20	17			actual	248,196			28,643	3,303	31,946
92-Mar 92	Base	Actual servlce	180	20	17			actual	250,757	36,176	14.5%	28,691	3,318	32,009
92-Jun 92	**A**	Faster service	180	20	17	255,409	36,764	14.5%	255,409	36,964	14.5%	29,372	3,397	32,769
93-Sep 92	A		180	20	17				256,516	37,124	14.5%	29,499	3,412	32,911
93-Dec 92	A		180	20	17				257,620	37,285	14.5%	29,627	3,426	33,054
93-Mar 93	A		180	20	17				258,744	37,447	14.5%	29,756	3,441	33,197
93-Jun 93	A		180	20	17	259,865	37,640	14.5%	259,865	37,640	14.5%	29,885	3,456	33,341
94-Sep 93	A		100	20	17				262,104	37,964	14.5%	30,142	3,486	33,628
94-Dec 93	A		180	20	17				264,363	38,291	14.5%	30,402	3,516	33,918
94-Mar 94	A		100	20	17				266,640	38,621	14.5%	30,664	3,546	34,210
94-Jun 94	A		180	20	17	268,937	39,700	14.8%	268,937	39,700	14.8%	30,928	3,577	34,505
95-Sep 94	A		180	20	17				271,550	40,081	14.8%	31,225	3,611	34,836
95-Dec 94	**B**	Headway cut	150	24	20				274,128	40,466	14.8%	31,525	3,646	35,171
95-Mar 95	B		150	24	20				276,761	40,855	14.8%	31,828	3,681	35,508
95-Jun 95	B		150	24	20	279,419	41,280	14.8%	279,419	41,280	14.8%	32,133	3,716	35,850
96-Sep 95	B	No. Concord/Colma	150	24	20				285,660	42,202	14.8%	32,851	3,799	36,650
96-Dec 95	B	East Dublin	150	24	24				292,039	43,144	14.8%	33,585	3,884	37,469
96-Mar 96	B		150	24	24				298,562	44,108	14.8%	34,335	3,971	38,305
96-Jun 96	B		150	24	24	305,229	44,590	14.6%	305,229	44,590	14.6%	35,101	4,060	39,161
97-Sep 96	**C**	Headway cut	135	26	26				307,638	44,942	14.6%	35,378	4,092	39,470
97-Dec 96	C		135	26	26				310,066	45,297	14.6%	35,658	4,124	39,781
97-Mar 97	C	West Pittsburg	135	26	26				312,513	45,654	14.6%	35,939	4,156	40,095
97-Jun 97	C		135	26	26	314,980	45,978	14.6%	314,980	45,978	14.6%	36,223	4,189	40,412
98-Sep 97	C		135	26	26				317,240	46,308	14.6%	36,483	4,219	40,702
98-Dec 97	C		135	26	26				319,517	46,640	14.6%	36,744	4,250	40,994
98-Mar 98	C	Warm Springs	135	26	26				321,810	46,975	14.6%	37,008	4,280	41,288
98-Jun 98	C		135	26	26	324,120	47,160	14.6%	324,120	47,160	14.6%	37,274	4,311	41,585
99-Sep 98	**D**	W. Dublin/Hdwy cut	120	30	28				325,392	47,344	14.6%	37,419	4,328	41,747
99-Dec 98	D		120	30	28				326,669	47,528	14.6%	37,565	4,344	41,909
99-Mar 99	D		120	30	28				327,921	47,713	14.6%	37,711	4,361	42,072
99-Jun 99	D		120	30	28	329,199	47,880	14.5%	329,199	47,880	14.5%	37,858	4,378	42,236
00-Sep 99	D		120	30	28				330,512	48,071	14.5%	38,009	4,396	42,405
00-Dec 99	D		120	30	28				331,831	48,263	14.5%	38,161	4,413	42,574
00-Mar 00	D		120	30	28				333,154	48,455	14.5%	38,313	4,431	42,744
00-Jun 00	D		120	30	28	334,484	48,489	14.5%	334,484	48,489	14.5%	38,466	4,449	42,914
01-Sep 00	D		120	30	28				335,809	48,620	14.5%	38,570	4,461	43,030
01-Dec 00	D		120	30	28				336,297	48,752	14.5%	38,674	4,473	43,147
01-Mar 01	D		120	30	28				337,208	48,884	14.5%	38,779	4,485	43,264
01-Jun 01	D		120	30	28	338,121	49,193	14.5%	338,121	49,193	14.5%	38,884	4,497	43,381
02-Sep 01	D		120	30	28				339,811	49,439	14.5%	39,078	4,519	43,598
02-Dec 01	D		120	30	28				341,516	49,686	14.5%	39,274	4,542	43,816
02-Mar 02	D		120	30	28				343,238	49,935	14.5%	39,470	4,565	44,035
02-Jun 02	**E**	SF Airport	120	30	28	327,943	54,601	14.4%	327,943	54,601	14.4%	43,463	5,027	48,490

BART SERVICE EXPANSION AND KEY SYSTEM COMPONENTS
HEADWAY REDUCTION AND EXTENSIONS
FILE: C:\SRTP\FY92\SERVICE\SERVPLN3
07/09/92

RANGE = A1..AJ61, HIDE COLUMNS G..O
TOTAL RANGE = A1..CD63

*** ENTER POLICY LOAD FACTOR HERE = 1.15 ***
*** LOAD FACTORS DURING CAP REHAB = 1.15 1.15 ***

FY & QTR MONTH-ENDING	SERVICE LEVEL	EVENT AND/OR SERVICE DESCRIPTION	MINIMUM HEADWAY seconds	MAXIMUM HEADWAY TRAINS/HR	MAXIMUM TRANSBAY SCREENLINE THEO PLN'D	Policy Load Factor = 1.15 TRIPS	CARS	SEATS	LF	RIDERSHIP GROWTH QTR	CUMM	ANN
90-Mar 90	Base	Actual service	180	20	17	29,031	340	24,456	1.19	0.00%	0.00%	na
90-Jun 90	Base	Actual service	180	20	17	29,236	337	24,277	1.20	0.71%	0.71%	na
91-Sep 90	Base	Actual service	180	20	17	29,431	339	24,397	1.21	0.67%	1.38%	na
91-Dec 90	Base	Actual service	180	20	17	27,775	327	24,510	1.19	4.95%	-3.64%	na
91-Mar 91	Base	Actual service	180	20	17	29,189	335	24,194	1.21	4.81%	0.51%	na
91-Jun 91	Base	Actual service	180	20	17	28,410	342	24,654	1.15	-2.64%	-2.14%	na
91-Sep 91	Base	Actual service	180	20	17	28,619	350	25,181	1.14	0.74%	-1.42%	na
92-Dec 91	Base	Actual service	180	20	17	28,643	342	24,642	1.16	0.08%	-1.34%	na
92-Mar 92	Base	Actual service	180	20	17	28,643	346	24,912	1.15	0.00%	0.00%	na
92-Jun 92	*****	Faster service	180	20	17	29,372	355	25,541	1.15	2.55%	2.55%	na
93-Sep 92	A		180	20	17	29,499	356	25,652	1.15	0.43%	2.99%	na
93-Dec 92	A		180	20	17	29,627	358	25,763	1.15	0.43%	3.44%	na
93-Mar 93	A		180	20	17	29,756	359	25,874	1.15	0.43%	3.88%	3.88%
93-Jun 93	A		180	20	17	29,885	361	25,987	1.15	0.43%	4.33%	1.74%
93-Sep 93	A		180	20	17	30,142	364	26,210	1.15	0.86%	5.23%	2.19%
93-Dec 93	A		180	20	17	30,402	367	26,436	1.15	0.86%	6.14%	2.61%
94-Mar 94	A		180	20	17	30,664	370	26,664	1.15	0.86%	7.05%	3.05%
94-Jun 94	A		180	20	17	30,928	374	26,894	1.15	0.86%	7.98%	3.49%
95-Sep 94	A		180	20	17	31,193	377	27,152	1.15	0.86%	9.01%	3.59%
95-Dec 94	*****	Headway cut	150	24	20	31,525	381	27,413	1.15	0.96%	10.06%	3.69%
95-Mar 95	B		150	24	20	31,858	384	27,676	1.15	0.96%	11.12%	3.80%
95-Jun 95	B		150	24	20	32,133	388	27,942	1.15	0.96%	12.19%	3.90%
96-Sep 95	B	Ho. Concord/Colma	150	24	20	32,851	397	28,566	1.15	2.23%	14.69%	5.21%
96-Dec 95	B	East Dublin	150	24	24	33,585	406	29,204	1.15	2.23%	17.25%	6.53%
96-Mar 96	B		150	24	24	34,335	415	29,856	1.15	2.23%	19.87%	7.08%
96-Jun 96	B		150	24	24	35,101	424	30,523	1.15	2.23%	22.55%	9.24%
97-Sep 96	*****	Headway cut	135	26	26	35,178	427	30,744	1.15	0.77%	23.53%	7.69%
97-Dec 96	C		135	26	26	35,658	431	31,007	1.15	0.77%	24.49%	6.17%
97-Mar 97	C	West Pittsburg	135	26	26	35,939	434	31,251	1.15	0.79%	25.47%	4.67%
97-Jun 97	C		135	26	26	36,223	437	31,498	1.15	0.79%	26.46%	3.19%
98-Sep 97	C		135	26	26	36,403	441	31,724	1.15	0.72%	27.37%	3.12%
98-Dec 97	C		135	26	26	36,744	444	31,952	1.15	0.72%	28.28%	3.05%
98-Mar 98	C	Warm Springs	135	26	26	37,008	447	32,181	1.15	0.72%	29.20%	2.97%
98-Jun 98	C		135	26	26	37,274	450	32,412	1.15	0.72%	30.13%	2.90%
99-Sep 98	*****	W. Dublin/Hdwy cut	120	30	28	37,417	452	32,538	1.15	0.39%	30.64%	2.57%
99-Dec 98	D		120	30	28	37,565	454	32,665	1.15	0.39%	31.15%	2.23%
99-Mar 99	D		120	30	28	37,711	455	32,792	1.15	0.39%	31.66%	1.90%
99-Jun 99	D		120	30	28	37,858	457	32,920	1.15	0.39%	32.17%	1.57%
00-Sep 99	D		120	30	28	38,009	459	33,051	1.15	0.40%	32.70%	1.58%
00-Dec 99	D		120	30	28	38,161	461	33,183	1.15	0.40%	33.23%	1.59%
00-Mar 00	D		120	30	28	38,313	463	33,315	1.15	0.40%	33.76%	1.60%
00-Jun 00	D		120	30	28	38,466	465	33,448	1.15	0.40%	34.29%	1.61%
01-Sep 00	D		120	30	28	38,570	466	33,539	1.15	0.27%	34.66%	1.40%
01-Dec 00	D		120	30	28	38,674	467	33,630	1.15	0.27%	35.02%	1.35%
01-Mar 01	D		120	30	28	38,779	468	33,721	1.15	0.27%	35.39%	1.22%
01-Jun 01	D		120	30	28	38,884	470	33,812	1.15	0.27%	35.75%	1.09%
02-Sep 01	D		120	30	28	39,020	472	33,931	1.15	0.00%	36.41%	1.32%
02-Dec 01	D		120	30	28	39,274	474	34,151	1.15	0.00%	37.11%	1.55%
02-Mar 02	D		120	30	28	39,479	477	34,332	1.15	0.00%	37.80%	1.78%

FY & QTR MONTH-ENDING	SERVICE LEVEL	EVENT AND/OR SERVICE DESCRIPTION	MINIMUM HEADWAY seconds	MAXIMUM HEADWAY TRAINS/HR	MAXIMUM SPEEDLINK EASTBAY RHOLE THEO PLN'D	Policy Load Factor = 1.15 TRIPS	CARS	SEATS	LF	RIDERSHIP GROWTH QTR	CUMM	ANN
90-Mar 90	Base	Actual service	180	20	17	3,123	47	3,106	0.9%	0.00%	0.00%	na
90-Jun 90	Base	Actual service	180	20	17	3,176	48	3,441	0.9%	1.70%	1.70%	na
91-Sep 90	Base	Actual service	180	20	17	3,323	48	3,476	0.9%	4.63%	6.40%	na
91-Dec 90	Base	Actual service	180	20	17	3,519	49	3,511	0.9%	5.90%	12.47%	na
91-Mar 91	Base	Actual service	180	20	17	3,304	49	3,547	0.9%	3.67%	16.30%	na
91-Jun 91	Base	Actual service	180	20	17	3,203	50	3,630	0.9%	2.70%	5.11%	na
91-Sep 91	Base	Actual service	180	20	17	3,349	49	3,506	0.9%	4.56%	7.24%	na
92-Dec 91	Base	Actual service	180	20	17	3,303	51	3,636	0.9%	1.34%	5.74%	na
92-Mar 92	Base	Actual service	180	20	17	3,303	51	3,672	0.9%	0.00%	0.00%	na
92-Jun 92	*****	Faster service	180	20	17	3,397	41	2,954	1.15	2.84%	2.84%	na
93-Sep 92	A		180	20	17	3,412	41	2,967	1.15	0.43%	3.29%	na
93-Dec 92	A		180	20	17	3,426	41	2,980	1.15	0.43%	3.74%	na
93-Mar 93	A		180	20	17	3,441	42	2,992	1.15	0.43%	4.19%	4.19%
93-Jun 93	A		180	20	17	3,456	42	3,005	1.15	0.43%	4.64%	1.74%
93-Sep 93	A		180	20	17	3,486	42	3,031	1.15	0.86%	5.54%	2.18%
93-Dec 93	A		180	20	17	3,516	42	3,057	1.15	0.86%	6.45%	2.61%
94-Mar 94	A		180	20	17	3,546	43	3,084	1.15	0.86%	7.37%	3.05%
94-Jun 94	A		180	20	17	3,577	43	3,110	1.15	0.86%	8.29%	3.49%
95-Sep 94	A		180	20	17	3,611	44	3,140	1.15	0.96%	9.33%	3.59%
95-Dec 94	*****	Headway cut	150	24	20	3,646	44	3,170	1.15	0.96%	10.30%	3.69%
95-Mar 95	B		150	24	20	3,681	44	3,201	1.15	0.96%	11.44%	3.80%
95-Jun 95	B		150	24	20	3,716	45	3,232	1.15	0.96%	12.51%	3.90%
96-Sep 95	B	Ho. Concord/Colma	150	24	20	3,799	46	3,304	1.15	2.23%	15.02%	5.21%
96-Dec 95	B	East Dublin	150	24	24	3,884	47	3,378	1.15	2.23%	17.59%	6.53%
96-Mar 96	B		150	24	24	3,971	48	3,453	1.15	2.23%	20.22%	7.08%
96-Jun 96	B		150	24	24	4,060	49	3,530	1.15	2.23%	22.91%	9.24%
97-Sep 96	*****	Headway cut	135	26	26	4,092	49	3,558	1.15	0.77%	23.87%	7.69%
97-Dec 96	C		135	26	26	4,124	50	3,586	1.15	0.77%	24.85%	6.17%
97-Mar 97	C		135	26	26	4,156	50	3,614	1.15	0.77%	25.84%	4.67%
97-Jun 97	C		135	26	26	4,189	51	3,643	1.15	0.79%	26.84%	3.19%
98-Sep 97	C		135	26	26	4,219	51	3,669	1.15	0.72%	27.74%	3.12%
98-Dec 97	C		135	26	26	4,250	51	3,695	1.15	0.72%	28.66%	3.05%
98-Mar 98	C		135	26	26	4,280	52	3,722	1.15	0.72%	29.58%	2.97%
98-Jun 98	C		135	26	26	4,311	52	3,749	1.15	0.72%	30.51%	2.90%
99-Sep 98	*****	W. Dublin/Hdwy cut	120	30	28	4,328	52	3,763	1.15	0.39%	31.03%	2.57%
99-Dec 98	D		120	30	28	4,344	52	3,778	1.15	0.39%	31.55%	2.23%
99-Mar 99	D		120	30	28	4,361	53	3,792	1.15	0.39%	32.06%	1.90%
99-Jun 99	D		120	30	28	4,378	53	3,807	1.15	0.39%	32.58%	1.57%
00-Sep 99	D		120	30	28	4,396	53	3,822	1.15	0.40%	33.09%	1.58%
00-Dec 99	D		120	30	28	4,413	53	3,838	1.15	0.40%	33.62%	1.59%
00-Mar 00	D		120	30	28	4,431	54	3,853	1.15	0.40%	34.15%	1.60%
00-Jun 00	D		120	30	28	4,449	54	3,868	1.15	0.40%	34.68%	1.61%
01-Sep 00	D		120	30	28	4,461	54	3,879	1.15	0.27%	35.06%	1.40%
01-Dec 00	D		120	30	28	4,473	54	3,889	1.15	0.27%	35.44%	1.35%
01-Mar 01	D		120	30	28	4,485	54	3,900	1.15	0.27%	35.78%	1.27%
01-Jun 01	D		120	30	28	4,497	54	3,910	1.15	0.27%	36.19%	1.09%
02-Sep 01	D		120	30	28	4,519	55	3,930	1.15	0.00%	36.89%	1.32%
02-Dec 01	D		120	30	28	4,542	55	3,950	1.15	0.00%	37.61%	1.55%
02-Mar 02	D		120	30	28	4,565	55	3,969	1.15	0.00%	38.33%	1.78%

FY & QTR MONTH-ENDING	SERVICE LEVEL	EVENT AND/OR SERVICE DESCRIPTION	SYSTEM TOTAL MAXIMUM SCREENLINE Policy Load Factor = 1.15 TRIPS	CARS	SEATS	LF	RIDERSHIP GROWTH QTR	CUMM	ANN
90-Mar 90	Base	Actual service	32,154	387	27,562	1.15	0.00%	0.00%	na
90-Jun 90	Base	Actual service	32,412	385	27,718	1.17	0.80%	0.80%	na
91-Sep 90	Base	Actual service	32,754	387	27,875	1.18	1.06%	1.87%	na
91-Dec 90	Base	Actual service	31,294	376	28,049	1.12	-4.45%	-2.67%	na
91-Mar 91	Base	Actual service	32,564	384	27,636	1.18	4.06%	1.38%	na
91-Jun 91	Base	Actual service	31,693	393	28,284	1.12	-2.67%	-1.43%	na
91-Sep 91	Base	Actual service	31,960	398	28,687	1.11	0.84%	-0.58%	na
92-Dec 91	Base	Actual service	31,946	393	28,278	1.13	-0.07%	-0.65%	na
92-Mar 92	Base	Actual service	31,946	397	28,584	1.12	0.00%	0.00%	na
92-Jun 92	*****	Faster service	32,769	395	28,440	1.15	2.58%	2.58%	na
93-Sep 92	A		32,911	397	28,584	1.15	0.43%	3.02%	na
93-Dec 92	A		33,054	399	28,728	1.15	0.43%	3.47%	na
93-Mar 93	A		33,197	400	28,800	1.15	0.43%	3.92%	3.92%
93-Jun 93	A		33,341	402	28,944	1.15	0.43%	4.37%	1.74%
93-Sep 93	A		33,628	406	29,232	1.15	0.86%	5.27%	2.18%
93-Dec 93	A		33,918	409	29,448	1.15	0.86%	6.17%	2.61%
94-Mar 94	A		34,210	413	29,736	1.15	0.86%	7.09%	3.05%
94-Jun 94	A		34,505	416	29,952	1.15	0.86%	8.01%	3.49%
95-Sep 94	A		34,836	420	30,240	1.15	0.96%	9.05%	3.59%
95-Dec 94	*****	Headway cut	35,171	424	30,528	1.15	0.96%	10.09%	3.69%
95-Mar 95	B		35,508	428	30,816	1.15	0.96%	11.15%	3.80%
95-Jun 95	B		35,850	432	31,104	1.15	0.96%	12.22%	3.90%
96-Sep 95	B	Ho. Concord/Colma	36,650	442	31,824	1.15	2.23%	14.73%	5.21%
96-Dec 95	B	East Dublin	37,469	452	32,544	1.15	2.23%	17.29%	6.53%
96-Mar 96	B		38,305	462	33,264	1.15	2.23%	19.91%	7.08%
96-Jun 96	B		39,161	472	33,984	1.15	2.23%	22.58%	9.24%
97-Sep 96	*****	Headway cut	39,470	476	34,272	1.15	0.79%	23.55%	7.69%
97-Dec 96	C		39,781	480	34,560	1.15	0.79%	24.53%	6.17%
97-Mar 97	C		40,095	484	34,848	1.15	0.79%	25.51%	4.67%
97-Jun 97	C		40,412	488	35,136	1.15	0.79%	26.50%	3.19%
98-Sep 97	C		40,702	491	35,352	1.15	0.72%	27.41%	3.12%
98-Dec 97	C		40,994	495	35,640	1.15	0.72%	28.32%	3.05%
98-Mar 98	C		41,288	498	35,856	1.15	0.72%	29.24%	2.97%
98-Jun 98	C		41,585	502	36,144	1.15	0.72%	30.17%	2.90%
99-Sep 98	*****	W. Dublin/Hdwy cut	41,747	504	36,288	1.15	0.39%	30.68%	2.57%
99-Dec 98	D		41,909	506	36,432	1.15	0.39%	31.19%	2.23%
99-Mar 99	D		42,072	508	36,576	1.15	0.39%	31.70%	1.90%
99-Jun 99	D		42,236	510	36,720	1.15	0.39%	32.21%	1.57%
00-Sep 99	D		42,405	512	36,864	1.15	0.40%	32.74%	1.58%
00-Dec 99	D		42,574	514	37,008	1.15	0.40%	33.27%	1.59%
00-Mar 00	D		42,744	516	37,152	1.15	0.40%	33.80%	1.60%
00-Jun 00	D		42,914	518	37,296	1.15	0.40%	34.33%	1.61%
01-Sep 00	D		43,030	519	37,368	1.15	0.27%	34.70%	1.40%
01-Dec 00	D		43,147	521	37,512	1.15	0.27%	35.06%	1.35%
01-Mar 01	D		43,264	522	37,584	1.15	0.27%	35.43%	1.22%
01-Jun 01	D		43,381	523	37,656	1.15	0.27%	35.79%	1.09%
02-Sep 01	D		44,094	526	37,872	1.15	0.50%	36.47%	1.35%
02-Dec 01	D		44,808	529	38,088	1.15	0.50%	37.16%	1.55%
02-Mar 02	D		45,521	531	38,232	1.15	0.50%	37.84%	1.78%

BART SERVICE EXPANSION AND KEY SYSTEM COMPONENTS | PAGE 3
HEADWAY REDUCTION AND EXTENSIONS | RANGE = A1..B163, HIDE COLUMNS G..AJ
FILE: C:\SRTP\FY92\SERVICE\SERVPLN3 | TOTAL RANGE = A1..CD63
07/09/92

*** ENTER POLICY LOAD FACTOR HERE = 1.15 ***
*** LOAD FACTORS DURING CAR REHAB = 1.15 1.15 ***

FY & QTR ENDING	SERVICE LEVEL	EVENT AND/OR SERVICE DESCRIPTION	MINIMUM HEADWAY CAPABLTY seconds	TRAINS/HR THEO	PLN'D	EXTENSION SERVICE PLAN INCREMENT: NEW MILES STAT	+ TRAINS TRACK	INC	CUMM	+ CARS INC	CUMM	OASE SYSTEM INCREMENT: PEAK HOUR OF PK TRNS	BAL TRNS	TOT PEAK PD TRNS	CARS	CAR BUY: NEW CARS	TOTAL INCREMENT: TRAINS ADDED	CARS ADDED	SYSTEM TOTAL: MILES	MAX TRAINS ONLINE	MAX CARS ONLINE	AVG CARS IN FLEET	AVG TRAIN LEN	FLEET STATUS: ON LINE SPRS	SVC RQ'T	FOR REHAD	IN SHOP & PMs	XS CARS A's & B 1.75	(-)
90-Mar 90	Base	Actual servlce	180	20	17	0	0	0	0	0	0	0	0	0		0	0												
90-Jun 90	Base	Actual servlce	180	20	17	0	0	0	0	0	0	0	0	0		0	0												
91-Sep 90	Base	Actual servlce	180	20	17	0	0	0	0	0	0	0	0	0		0	0												
91-Dec 90	Base	Actual servlce	100	20	17	0	0	0	0	0	0	0	0	0		0	0												
91-Mar 91	Base	Actual servlce	180	20	17	0	0	0	0	0	0	0	0	0		0	0												
91-Jun 91	Base	Actual servlce	180	20	17	0	0	0	0	0	0	0	0	0		0	0												
92-Sep 91	Base	Actual servlce	180	20	17	0	0	0	0	0	0	0	0	0		0	0												
92-Dec 91	Base	Actual servlce	100	20	17	0	0	0	0	0	0	0	0	0		0	0												
92-Mar 92	Base	Actual servlce	100	20	17	0	0	0	0	0	0	0	0	0	0	0	0		34	71.5	47	417	589	8.9	47	464	0	73	33	18
92-Jun 92	*****	Faster service	180	20	17	0	0	0	0	0	0	0	(4)	(4)	(2)	(4)	(2)	0	34	71.5	43	395	509	9.2	55	450	0	73	40	25
93-Sep 92	A		100	20	17	0	0	0	0	0	0	0	0	0	2	0	2	0	34	71.5	43	397	509	9.2	55	452	0	73	40	23
93-Dec 92	A		100	20	17	0	0	0	0	0	0	0	0	0	2	0	2	0	34	71.5	43	399	509	9.3	55	454	0	73	40	21
93-Mar 93	A		100	20	17	0	0	0	0	0	0	0	0	0	1	0	1	0	34	71.5	43	400	589	9.3	55	455	0	73	40	20
93-Jun 93	A		100	20	17	0	0	0	0	0	0	0	0	0	2	0	2	0	34	71.5	43	402	589	9.3	55	457	0	73	40	18
94-Sep 93	A		100	20	17	0	0	0	0	0	0	0	0	0	4	0	4	0	34	71.5	43	406	509	9.4	55	461	0	73	40	14
94-Dec 93	A		100	20	17	0	0	0	0	0	0	0	0	0	3	0	3	0	34	71.5	43	407	589	9.5	55	464	0	73	40	11
94-Mar 94	A		100	20	17	0	0	0	0	0	0	0	0	0	4	0	4	0	34	71.5	43	413	589	9.6	55	468	0	73	40	7
94-Jun 94	A		100	20	17	0	0	0	0	0	0	0	0	0	3	0	3	0	34	71.5	43	416	589	9.7	55	471	0	73	40	4
95-Sep 94	A		100	20	17	0	0	0	0	0	0	0	0	0	4	0	4	0	34	71.5	43	420	589	9.8	55	475	0	73	40	0
95-Dec 94	*****	Headway cut	150	24	20	0	0	0	0	0	0	0	3	3	6	4	6	0	34	71.5	49	424	589	8.7	55	479	0	73	30	7
95-Mar 95	B		150	24	20	0	0	0	0	0	0	0	4	4	8	4	8	0	34	71.5	49	428	594	8.7	55	483	0	74	30	7
95-Jun 95	B		150	24	20	0	0	0	0	0	0	0	4	4	8	4	8	0	34	71.5	49	432	619	8.8	55	487	0	78	30	24
96-Sep 95	B	No. Concord/Colna	150	24	20	2	3.8	1	1	6	6	0	0	0	10	1	10	0	36	75.5	50	438	624	9.0	55	503	20	80	11	29
96-Dec 95	B	East Dublin	150	24	24	2	13.0	3	4	32	38	4	0	4	10	7	42	25	38	80.3	57	496	649	0.6	55	545	20	83	0	21
96-Mar 96	B		150	24	24	0	0	0	4	0	38	0	0	0	10	0	10	25	38	80.3	57	500	674	8.0	55	555	20	86	0	33
96-Jun 96	B		150	24	24	0	0	0	4	0	38	0	0	0	10	0	10	25	38	80.3	57	510	689	0.9	55	565	30	87	0	37
97-Sep 96	*****	Headway cut	135	26	26	0	0	0	4	0	38	2	2	4	4	4	4	25	38	80.3	61	514	714	8.4	55	569	30	90	0	55
97-Dec 96	C		135	26	26	0	0	0	4	0	38	0	0	0	4	0	4	25	38	80.3	61	518	739	8.5	55	573	30	92	0	74
97-Mar 97	C	West Pittsburg	135	26	26	1	4.9	2	6	12	50	0	0	0	4	2	16	25	39	82.8	63	534	764	8.5	55	589	30	95	0	80
97-Jun 97	C		135	26	26	0	0	0	6	0	50	0	0	0	4	0	4	25	39	82.8	63	538	787	0.5	55	593	30	97	0	99
98-Sep 97	C		135	26	26	0	0	0	6	0	50	0	0	0	3	0	3	20	39	82.8	63	541	809	0.6	55	596	30	99	0	114
98-Dec 97	C		135	26	26	0	0	0	6	0	50	0	0	0	4	0	4	0	39	83.2	63	545	809	8.7	55	600	30	99	0	110
98-Mar 98	C	Warm Springs	135	26	26	2	4.6	4	10	28	78	0	0	0	3	4	31	0	41	97.8	67	576	809	8.6	55	631	30	99	0	79
98-Jun 98	C		135	26	26	1	0	0	10	0	78	0	0	0	4	0	4	0	42	97.8	67	580	809	8.7	55	635	30	99	0	75
99-Sep 98	*****	W. Dublin/Hdwy cut	120	30	28	0	0	0	10	0	78	2	2	4	2	4	4	0	42	97.8	71	582	809	8.2	55	637	30	99	0	73
99-Dec 98	D		120	30	28	0	0	0	10	0	78	0	0	0	2	0	2	0	42	97.8	71	584	809	0.2	55	639	30	99	0	71
99-Mar 99	D		120	30	28	0	0	0	10	0	78	0	0	0	2	0	2	0	42	97.8	71	586	809	0.3	55	641	30	99	0	69
99-Jun 99	D		120	30	28	0	0	0	10	0	78	0	0	0	2	0	2	0	42	97.8	71	588	809	0.3	55	643	20	99	0	77
00-Sep 99	D		120	30	28	0	0	0	10	0	78	0	0	0	2	0	2	0	42	97.8	71	590	839	0.3	55	645	0	99	0	95
00-Dec 99	D		120	30	28	0	0	0	10	0	78	0	0	0	2	0	2	0	42	97.8	71	592	839	0.3	55	647	0	99	0	93
00-Mar 00	D		120	30	28	0	0	0	10	0	78	0	0	0	2	0	2	0	42	97.8	71	594	839	0.4	55	649	0	99	0	91
00-Jun 00	D		120	30	28	0	0	0	10	0	78	0	0	0	2	0	2	0	42	97.8	71	596	839	0.4	55	651	0	99	0	89
01-Sep 00	D		120	30	28	0	0	0	10	0	78	0	0	0	1	0	1	0	42	97.8	71	597	839	0.4	55	652	0	99	0	00
01-Dec 00	D		120	30	28	0	0	0	10	0	78	0	0	0	2	0	2	0	42	97.8	71	599	839	0.4	55	654	0	99	0	06
01-Mar 01	D		120	30	28	0	0	0	10	0	78	0	0	0	1	0	1	0	42	97.8	71	600	839	0.5	55	655	0	99	0	85
01-Jun 01	D		120	30	28	0	0	0	10	0	78	0	0	0	1	0	1	0	42	97.8	71	601	839	0.5	56	656	0	99	0	84
02-Sep 01	D		120	30	28	0	0	0	10	0	78	0	0	0	3	0	3	0	42	97.8	71	604	839	0.5	56	659	0	99	0	01
02-Dec 01	D		120	30	28	0	0	0	10	0	78	0	0	0	3	0	3	0	42	97.8	71	607	839	0.5	56	662	0	99	0	78
02-Mar 02	D		120	30	28	0	0	0	10	0	78	0	0	0	3	0	3	0	42	97.8	71	609	839	0.6	56	664	0	99	0	76
02-Jun 02	*****	SF Airport	150	30	28	1	5.9	4	14	46	124	0	0	0	54	4	100	0	46	103.7	75	707	909	9.5	55	764	0	99	0	(24)
TOTAL INCREMENTAL ADDITIONS TO OASE SYSTEM						12	32	14		124			11	3	14	100		28	12										

BART-SERVICE EXPANSION AND KEY SYSTEM COMPONENTS | PAGE 4
HEADWAY REDUCTION AND EXTENSIONS | RANGE - A1..CD63, HIDE G..81
FILE: C:\SRTPLFY92\SERPICE\SERVPLN3 | TOTAL RANGE - A1..CD63
07/09/92

*** ENTER POLICY LOAD FACTOR HERE = 1.15 ***
*** LOAD FACTORS DURING CAR REHAB = 1.15 1.15 ***

FY & QTR MONTH-ENDING	SERVICE LEVEL	EVENT AND/OR SERVICE DESCRIPTION	MINIMUM HEADWAY CAPACITY seconds	MAXIMUM TRAINS/HR TOTCO	PLN'D	NEW	FLEET INVENTORY AND ADDITIONS BY CAR TYPE: CAR A NEW	TOT	CAR B NEW	TOT	CAR C NEW	TOT	CAR DXT NEW	TOT	HEAD-NXT NEW	TOT	ALL NEW	CUMM	TOT	CAR STORAGE CAPACITY, SPACES AVAILABLE vs REQUIRED: w/ TC # YARDS 100%	#NC%	TXT TAIL TRACK 100%	#NC%	MAX AVAIL w/ TC	CARS IN STOR	EXCESS/(DEF) w/ TC	S&W OTC
90-Mar 90	Base	Actual service	180	20	17																							
90-Jun 90	Base	Actual service	180	20	17																							
91-Sep 90	Base	Actual service	180	20	17																							
91-Dec 90	Base	Actual service	180	20	17																							
91-Mar 91	Base	Actual service	180	20	17																							
91-Jun 91	Base	Actual service	180	20	17																							
92-Sep 91	Base	Actual service	180	20	17																							
92-Dec 91	Base	Actual service	180	20	17																							
92-Mar 92	Base	Actual service	180	20	17	0	136	0	303	0	150	0	0	0	0	0	0	0	589	651	521	0	0	521	516	5	61
92-Jun 92	**A**	Faster service	180	20	17	0	136	0	303	0	150	0	0	0	0	0	0	0	589	651	521	0	0	521	516	5	61
92-Sep 92	A		180	20	17	0	136	0	303	0	150	0	0	0	0	0	0	0	589	651	521	0	0	521	516	5	61
92-Dec 92	A		180	20	17	0	136	0	303	0	150	0	0	0	0	0	0	0	589	651	521	0	0	521	516	5	61
93-Mar 93	A		180	20	17	0	136	0	303	0	150	0	0	0	0	0	0	0	589	651	521	0	0	521	516	5	61
93-Jun 93	A		180	20	17	0	136	0	303	0	150	0	0	0	0	0	0	0	589	651	521	0	0	521	516	5	61
94-Sep 93	A		180	20	17	0	136	0	303	0	150	0	0	0	0	0	0	0	589	721	577	0	0	577	516	61	61
94-Dec 93	A		180	20	17	0	136	0	303	0	150	0	0	0	0	0	0	0	589	721	577	0	0	577	516	61	61
94-Mar 94	A		180	20	17	0	136	0	303	0	150	0	0	0	0	0	0	0	589	721	577	0	0	577	516	61	61
94-Jun 94	A		180	20	17	0	136	0	303	0	150	0	0	0	0	0	0	0	589	721	577	0	0	577	516	61	61
95-Sep 94	A		180	20	17	0	136	0	303	0	150	0	0	0	0	0	0	0	589	721	577	0	0	577	516	61	61
95-Dec 94	**B**	Headway cut	150	24	20	0	136	0	303	0	150	0	0	0	0	0	0	0	589	721	577	0	0	577	516	61	61
95-Mar 95	B		150	24	20	0	136	0	303	0	150	5	5	0	0	0	5	5	594	721	577	0	0	577	520	57	57
95-Jun 95	B		150	24	20	0	136	0	303	0	150	25	30	0	0	25	30	30	619	721	577	0	0	577	541	36	36
96-Sep 95	B	No. Concord/Colma	150	24	20	(20)	116	20	323	0	150	25	55	0	0	25	55	644	721	577	32	26	602	524	79	79
96-Dec 95	B	East Dublin	150	24	24	(20)	96	20	343	0	150	25	80	0	0	25	80	669	721	577	102	82	658	546	113	113
96-Mar 96	B		150	24	24	(20)	76	20	363	0	150	20	100	5	5	25	105	694	721	577	102	82	658	560	90	90
96-Jun 96	B		150	24	24	(20)	56	20	383	0	150	0	100	25	30	25	130	719	721	577	102	82	650	572	87	87
97-Sep 96	**C**	Headway cut	135	26	26	0	56	0	383	0	150	0	100	25	55	25	155	744	721	577	102	82	650	594	64	64
97-Dec 96	C		135	26	26	0	56	0	383	0	150	0	100	25	80	25	180	769	721	577	102	82	650	617	42	42
97-Mar 97	C	West Pittsburg	135	26	26	0	56	0	383	0	150	0	100	25	105	25	205	794	721	577	102	146	722	639	83	83
97-Jun 97	C		135	26	26	0	56	0	383	0	150	0	100	25	130	25	230	819	721	577	102	146	722	662	61	61
98-Sep 97	C		135	26	26	0	56	0	383	0	150	0	100	20	150	20	250	839	721	577	102	146	722	680	43	43
98-Dec 97	C		135	26	26	0	56	0	383	0	150	0	100	0	150	0	250	839	721	577	102	146	722	680	43	43
98-Mar 98	**C**	Warm Springs	135	26	26	0	56	0	383	0	150	0	100	0	150	0	250	839	721	577	252	202	778	680	99	99
98-Jun 98	C		135	26	26	0	56	0	383	0	150	0	100	0	150	0	250	839	721	577	252	202	778	680	99	99
99-Sep 98	**D**	W. Dublin/Hdwy cut	120	30	20	0	56	0	383	0	150	0	100	0	150	0	250	839	721	577	252	202	778	680	99	99
99-Dec 98	D		120	30	20	0	56	0	383	0	150	0	100	0	150	0	250	839	721	577	252	202	778	680	99	99
99-Mar 99	D		120	30	28	0	56	0	383	0	150	0	100	0	150	0	250	839	721	577	252	202	778	680	99	99
99-Jun 99	D		120	30	28	0	56	0	383	0	150	0	100	0	150	0	250	839	721	577	252	202	778	700	79	79
00-Sep 99	D		120	30	20	0	56	0	383	0	150	0	100	0	150	0	250	839	721	577	252	202	778	740	39	39
00-Dec 99	D		120	30	28	0	56	0	383	0	150	0	100	0	150	0	250	839	721	577	252	202	778	740	39	39
00-Mar 00	D		120	30	28	0	56	0	383	0	150	0	100	0	150	0	250	839	721	577	252	202	778	740	39	39
00-Jun 00	D		120	30	28	0	56	0	383	0	150	0	100	0	150	0	250	839	721	577	252	202	778	740	39	39
01-Sep 00	D		120	30	20	0	56	0	383	0	150	0	100	0	150	0	250	839	721	577	252	202	778	740	39	39
01-Dec 00	D		120	30	28	0	56	0	383	0	150	0	100	0	150	0	250	839	721	577	252	202	778	740	39	39
01-Mar 01	D		120	30	28	0	56	0	383	0	150	0	100	0	150	0	250	839	721	577	252	202	778	740	39	39
01-Jun 01	D		120	30	28	0	56	0	383	0	150	0	100	0	150	0	250	839	721	577	252	202	778	740	39	39
02-Sep 01	D		120	30	20	0	56	0	383	0	150	0	100	0	150	0	250	839	721	577	252	202	778	740	39	39
02-Dec 01	D		120	30	28	0	56	0	383	0	150	0	100	0	150	0	250	839	721	577	252	202	778	740	39	39
03-Mar 02	D		120	30	28	0	56	0	383	0	150	0	100	0	150	0	250	839	721	577	252	202	778	740	39	39

APPENDIX B

FY 1993 BART PROGRAM OBJECTIVES

To Be Provided In Final

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SHORT - RANGE TRANSIT PLAN

FOR THE TEN YEAR PERIOD
JULY 1992 THROUGH JUNE 2002

FY 1993 - FY 2002

Adopted by the District Board of Directors
on November 24, 1992

SAN FRANCISCO BAY AREA RAPID TRANSIT DISTRICT

SHORT-RANGE TRANSIT PLAN

FISCAL YEARS 1993 - 2002

The preparation of this report has been financed in part through a grant from the United States Department of Transportation, Federal Transportation Administration under the Urban Mass Transportation Act of 1964, as amended and passed through the Metropolitan Transportation Commission. This report has been prepared in conformance with MTC guidelines for Short-Range Transit Plans as revised in March 1990.

The contents of this report reflect the views of BART which is responsible for the facts and the accuracy of the data presented herein. The contents do not necessarily reflect the original views or policy of the U.S. Department of Transportation. This report does not constitute a standard, specification, or regulation.

All projects discussed are subject to state and federal environmental review as required by law. Specific projects and project funding are subject to approval by the BART Board of Directors. Projects that do not yet satisfy these requirements are proposed projects.

Adopted by the District Board of Directors
November 24, 1992

SAN FRANCISCO BAY AREA RAPID TRANSIT DISTRICT

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Bay Area Rapid Transit District
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LIST OF ACRONYMS

ABAG: Association of Bay Area Governments.
AC: Alameda-Contra Costa Transit District.
ADA: Americans With Disabilities Act.
AFC: Automatic Fare Collection (equipment).
APTA: American Public Transit Association.
ATC: Automatic Train Control (system).
BART: (San Francisco) Bay Area Rapid Transit District.
CCCTA: Central Contra Costa Transit Authority.
CCS: Central Computer System.
CIP: (BART) Capital Improvement Program.
CPSP: Complimentary Paratransit Service Plan.
CPUC: California Public Utilities Commission.
DAS: (BART) Data Acquisition System.
DBE: Disadvantaged Business Enterprise.
ESP: (BART) Extension Service Plan.
FTA: Federal Transportation Administration (formerly UMTA).
ISTEA: Intermodal Surface Transportation Efficiency Act.
MPA: Manuel Padron and Associates.
MTC: Metropolitan Transportation Commission.
MUNI: (San Francisco) Municipal Railway.
NXTGEN: (BART) Next Generation Central Control System.
PERS: Public Employees Retirement System.
PFM: (BART) Passenger Flow Model.
PIP: Productivity Improvement Program.
PM: Preventative Maintenance.
SAMTRANS: San Mateo County Transit District.
SRTP: Short Range Transit Plan.
STA: State Transportation Assistance.
STEP: (BART) System Throughput Enhancement Plan.
TDA: Transportation Development Act
UMTA: Urban Mass Transportation Administration (now FTA).

CHAPTER 1

BART ORGANIZATION AND SYSTEM OVERVIEW

DISTRICT CHARTER AND ORGANIZATION

The San Francisco Bay Area Rapid Transit District was created by the California State Legislature in 1957 in response to Bay Area growth and transportation needs. Initial efforts focused on establishing the organization for the purpose of fulfilling the BART District charter which calls for the construction, operation, and maintenance of a rapid transit system in the Bay Area. Voter approval in 1962 of a $792 million general obligation bond issue in San Francisco, Alameda, and Contra Costa counties provided the initial funding base and authorization to begin construction of the 71 mile system: the first new rail transit system to be built in the United States in over 60 years and the first rail system to make large-scale use of computer technology.

The District is governed by nine elected Board of Directors, each member representing their respective local constituents within the three-county District. Board meetings are normally conducted twice each month, are subject to prior notice, and are open to the public. Directors serve on various standing committees and special committees of the Board to deliberate and make recommendations to the full Board. These meetings are also subject to prior public notice and are open to the public.

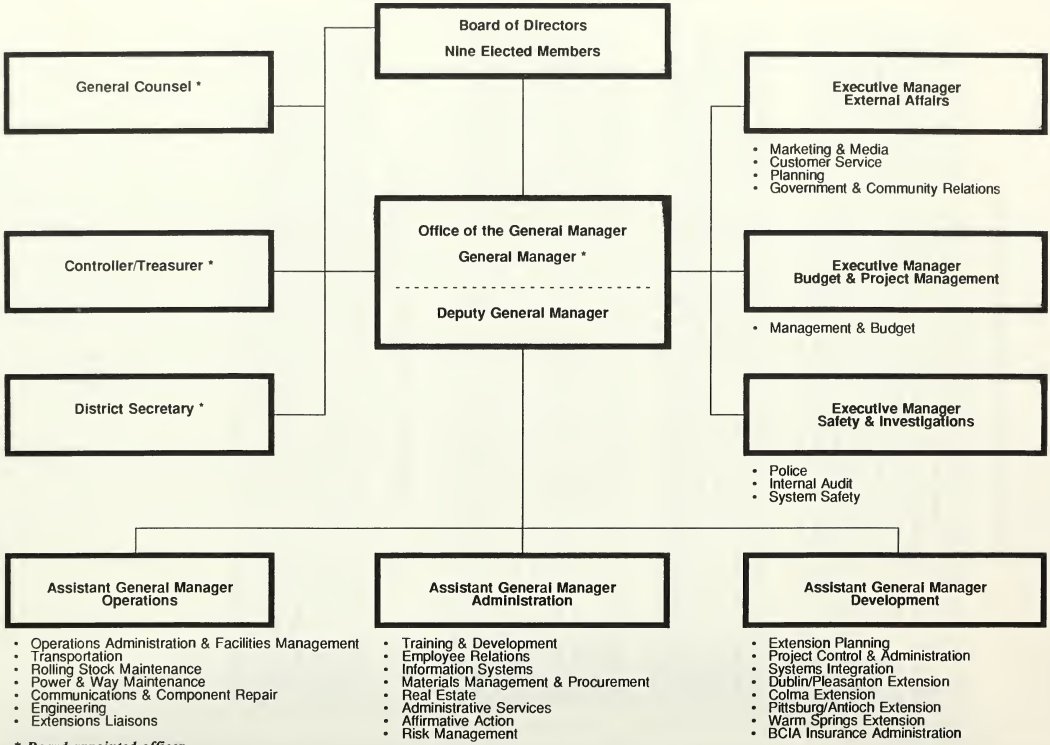
The organization at the staff level (Figure 1-1, BART Organization Chart) reflects a management structure that has evolved to effectively carry out the District's programs and policies. The General Manager, General Counsel, Controller/Treasurer, and District Secretary are Board-appointed officers and report directly to the Board of Directors. Other executive staff members consist of the Deputy General Manager, three Assistant General Managers, and three Executive Managers. These seven executive staff members report directly to the General Manager. Reporting to the executive staff are 31 Department Managers and their respective staffs. BART's total budgeted workforce for FY 92 was 2,632 full-time and 41 part-time positions.

MAJOR COMPONENTS OF BART'S CAPITAL PLANT

The 1962 general obligation bond issue provided funding for the basic BART system (Figure 1-2, System Map) which included: 71 miles of double-mainline track, three maintenance facilities and associated yards, 450 vehicles (ten of which have been retired from the operating fleet), an administration/central control facility, and 34 stations. Capital improvements made over the years have added to this inventory base and include 150 more cars, the Daly City Yard and Maintenance Facility, the KE subway track through downtown Oakland, and a new central train control computer.

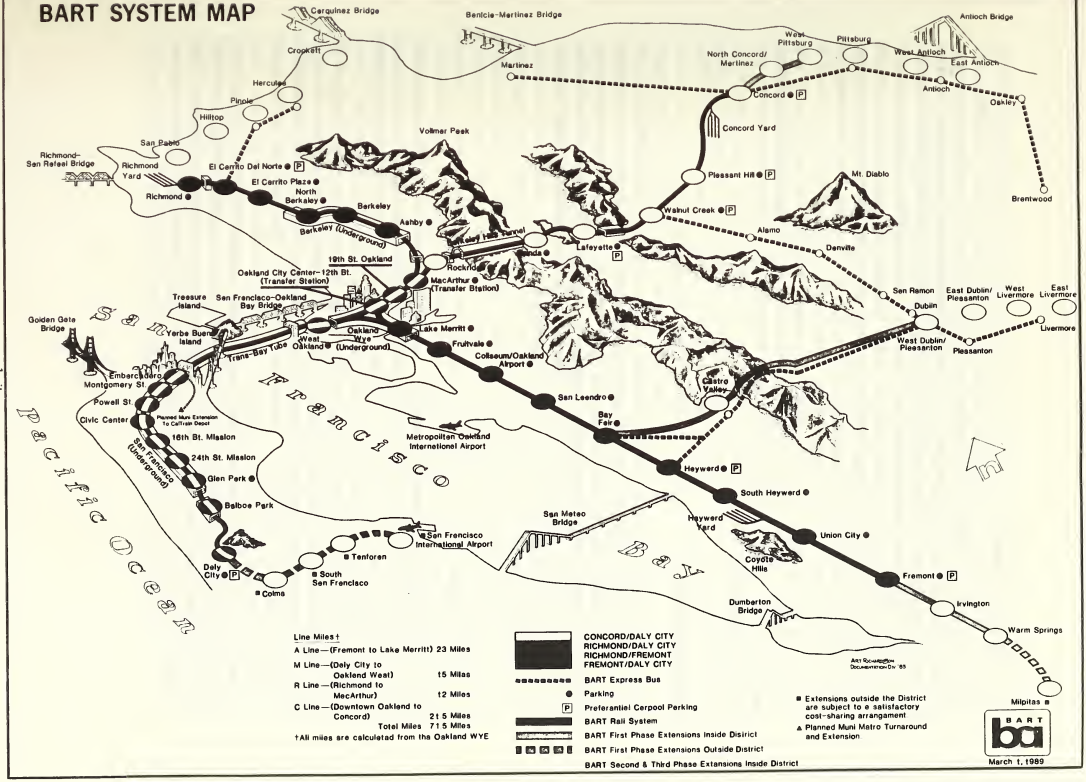
Figure 1.1

BART ORGANIZATION CHART



** Board appointed officer.*

BART SYSTEM MAP



Line Miles†

A Line—(Fremont to Lake Merritt) 23 Miles

M Line—(Daly City to Oakland West) 15 Miles

R Line—(Richmond to MacArthur) 12 Miles

C Line—(Downtown Oakland to Concord) 21.5 Miles

Total Miles 71.5 Miles

†All miles are calculated from the Oakland WYE

CONCORD/DALY CITY
RICHMOND/DALY CITY
RICHMOND/FREMONT
FREMONT/DALY CITY

BART Express Bus

Parking

P Preferential Carpool Parking

BART Rail System

BART First Phase Extensions Inside District

BART First Phase Extensions Outside District

BART Second & Third Phase Extensions Inside District

■ Extensions outside the District are subject to a satisfactory cost-sharing arrangement

▲ Planned Muni Metro Turnaround and Extension

March 1, 1999

Track and Right-of-Way

BART is a third-rail 1,000 volt DC electrically powered railway. The rail right-of-way is fully protected and has no grade crossings. BART's rail right-of-way consists of 71 miles of continuously welded double-mainline 66 inch gauge track (142 miles, bi-directional). Approximately 20 miles of double-mainline track are in subway, 24 miles are elevated, and 27 miles are at grade. There are 54.5 miles of additional single track located in yards, sidings, and other locations. All but 3.2 miles of this latter amount are at grade, and include leads and sidings located in the four maintenance yards. The remaining 3.2 miles largely constitute the KE track through downtown Oakland which is 1.8 miles in subway. A special track geometric vehicle is used to analyze the running rails and electric third rail. Tracks are routinely inspected and maintained to insure structural integrity and a smooth operating surface. Trackwork is routinely scheduled and performed during non-revenue hours.

Maintenance Yards

Routine preventative maintenance is carried out in accordance to specific schedules and is performed at four facilities, three of which are located in the East Bay (at Concord, Hayward, and Richmond), and one in the West Bay (at Daly City). In addition to scheduled maintenance functions, BART's Hayward shop also handles accident damage repairs. An additional maintenance facility located between Lake Merritt and Fruitvale Stations (Oakland Shops) provides support to buildings and grounds and equipment other than rail vehicles.

Revenue Vehicles

BART owns three types of revenue vehicles: control equipped A- and C-cars and non-control equipped B-cars. A- and B-cars are BART's first generation vehicles which were manufactured between 1971 and 1975. C-cars constitute BART's second generation fleet and were manufactured between 1987 and 1990. Control equipped A-cars are 75 feet long by 10.5 feet wide, have 72 seats, and can only be used as a lead or trail vehicle on each train. Non-control equipped B-cars also have 72 seats, are 70 feet by 10.5 feet, and can only be used as mid-train vehicles. Control equipped C-cars have 64 seats (plus dedicated spaces for passengers in wheelchairs), are 70 by 10.5 feet, and can be used as lead, mid-train, or trail vehicles. Trains are operated from the lead A- or C-car. Train movements are automatically controlled by computers located along the right-of-way. Overall system train supervision is provided by BART's train control computer at BART Central located in the Lake Merritt Administration Building in downtown Oakland. Train operators aboard each train can override the automatic system should the need arise.

BART's current fleet of 589 vehicles includes 136 A-cars, 303 B-cars, and 150 C-cars. One additional A-car is used as an engineering test vehicle. Permissible train lengths range from three to ten cars. [The three-car minimum train length is a California Public Utilities Commission requirement. The ten-car maximum length corresponds to station platform lengths.] Resulting capacity is between 192 and 720 seated passengers for a three and a ten-car train, respectively. Vehicle performance specifications include a maximum 80 mile per hour speed. Revenue service is based on a 70 mile per hour maximum speed, with the 80 mile per hour capability reserved for maintaining schedule adherence.

Stations and Parking

The system currently has 34 stations, 14 of which are in subway, 13 elevated, and 7 at grade. All stations have platform lengths of approximately 700 feet to accommodate BART's maximum train length of ten cars. Average station spacing is between one half to one mile within and adjacent to San Francisco, Oakland, and Berkeley downtown areas, and two to four miles apart in suburban areas.

Stations are fully accessible and have elevators and escalators, in addition to stairways, linking the various levels to streets, connecting local transit, and parking areas. In downtown San Francisco and Oakland, special subway entrances provide direct access between stations and retail establishments.

Automatic fare collection equipment is located in each station to vend and process passenger tickets. Automated train destination signs on the platform level of each station provide a visual display of an arriving train's destination and other information. All stations have special displays on the platform and concourse levels to provide additional information with regard to train schedules, local area destinations, connecting transit, and other information to assist BART riders. A public address system linked to BART headquarters is used to provide additional passenger information. This system is also used locally at each station by station agents.

Other passenger amenities include restrooms at each station, and depending upon location station access facilities include dedicated bus lanes and berths, bus stop shelters, transit information centers, regional transit ticket outlets, transfer dispensers, bicycle racks, and parking.

Parking is an important feature at suburban stations, where a majority of BART riders drive to a station and park. As of June 1992, BART's parking inventory consisted of 30,857 free spaces at 23 stations and 205 spaces at one additional station at a daily charge of 25¢. Free parking is also provided at four BART express bus park-ride lots which contain a total of 1,156 spaces (Figure 1-3, Parking Space Inventory).

Figure 1-3

BART PARKING SPACE INVENTORY
SPACES ADDED DURING FISCAL YEAR 1992

LINE AND STATION	NUMBER OF BART-OWNED PAVED PARKING SPACES AS OF JUN 1991	PLANNED FOR FY 92	ADDED IN FY 92	AS OF JUN 1992
SAN FRANCISCO LINE				
DALY CITY	1,937	0	291	2,228
GLEN PARK	55	0	0	55
WEST OAKLAND	424	0	0	424
SUBTOTAL	**2,416**	**0**	**291**	**2,707**
FREMONT LINE				
FREMONT	2,494	0	0	2,494
UNION CITY	1,218	0	0	1,218
SOUTH HAYWARD	1,307	0	0	1,307
HAYWARD	1,061	0	0	1,061
BAY FAIR	1,903	0	0	1,903
SAN LEANDRO	1,295	0	0	1,295
COLISEUM	1,059	0	0	1,059
FRUITVALE	1,103	0	0	1,103
LAKE MERRITT *	205	0	0	205
SUBTOTAL	**11,645**	**0**	**0**	**11,645**
RICHMOND LINE				
RICHMOND	796	0	0	796
EL CERRITO DEL NORTE	2,516	0	0	2,516
EL CERRITO PLAZA	795	0	0	795
NORTH BERKELEY	840	0	0	840
ASHBY	626	0	0	626
MACARTHUR	609	0	0	609
SUBTOTAL	**6,182**	**0**	**0**	**6,182**
CONCORD LINE				
CONCORD	1,975	0	0	1,975
PLEASANT HILL	2,045	1,200	1,200	3,245
WALNUT CREEK	1,518	0	0	1,518
LAFAYETTE **	1,521	0	0	1,521
ORINDA **	1,380	0	0	1,380
ROCKRIDGE **	879	0	10	889
SUBTOTAL	**9,318**	**1,200**	**1,210**	**10,528**
RAIL TOTAL	**29,561**	**1,200**	**1,501**	**31,062**
EXPRESS BUS PARK/RIDE				
NORTH CONCORD/MARTINEZ	538	0	0	538
WEST PITTSBURG	213	0	0	213
EAST ANTIOCH	252	0	0	252
WEST LIVERMORE	153	0	0	153
EXPRESS BUS TOTAL	**1,156**	**0**	**0**	**1,156**
SYSTEM GRAND TOTAL	***30,717***	***1,200***	***1,501***	***32,218***

* A $0.25 parking charge is in effect at Lake Merrit Station. All other BART-owned parking is free.

** Spaces at Lafayette, Orinda, and Rockridge stations are subject to special parking controls.

Administration/Central Control Facility

BART's administrative headquarters are located at 800 Madison Street in downtown Oakland, above Lake Merritt Station. This facility also houses BART's central train control computer. While trains are automatically controlled by wayside equipment located along the trackway and stations, the central train control computer at BART headquarters provides overall systemwide supervision of train movements. BART Central is an around-the-clock operation. Train Controllers and other BART certified personnel located at Central monitor train movements and can override the automatic system should the need arise. A two-way radio system provides voice communication between BART Central and all train operators. A separate telephone system provides voice communication to station agents. Remote cameras located at key locations allow BART Central personnel to visually monitor train movements and station activities.

BART SERVICE DESCRIPTION

Rail service is provided between the hours of 4:00 a.m. and 1:30 a.m. Monday through Friday, 6:00 a.m. to 1:30 a.m. on Saturdays, and 8:00 a.m. to 1:30 a.m. on Sundays and major holidays. Closing times for individual stations are coordinated with the schedule for the last train departure beginning approximately at midnight (Figure 1-4, BART Rail Headways and Hours of Service). The following service description reflects BART's June 22, 1992 schedule change which is based on faster train speeds relative to the prior schedule. BART express bus service is coordinated with the rail schedule, and is presented in a separate section below.

Early Morning Rail Service - Weekdays

Weekday service begins at approximately 4:00 a.m. with the first four train dispatches of the day at each of the system's four terminal stations. These trains operate on the Concord-Daly City and Fremont-Richmond routes. This service configuration is also known as *two-route X service*, and requires a transfer in downtown Oakland for trips which at other times are served by the Fremont-Daly City and Richmond-Daly City routes. A second set of four trains on the Concord-Daly City and Fremont-Richmond routes is dispatched 30 minutes later at approximately 4:30. At approximately 5:00 a.m., service transitions to four-route weekday base service, which continues until the start of morning peak service at about 6:00 a.m.

Peak Period Rail Service - Weekdays

Peak period service corresponds to weekday commute hours, typically between 6:00 a.m. to 9:00 a.m. and 4:00 p.m. to 7:00 p.m. Monday through Friday. During these times,

Figure 1-4

BART RAIL HEADWAYS AND HOURS OF SERVICE *

	TRANSBAY ROUTES			EAST BAY	CITY CENTER LINE SEGMENT	
	Concord-Daly City	Fremont-Daly City	Richmond-Daly City	Fremont-Richmond	San Francisco	Downtown Oakland
HEADWAYS (min)						
WEEKDAY						
Peak Hour	7.5	12.0	15.0	15.0	3.8	3.8
Midday	15.0	15.0	15.0	15.0	5.0	5.0
Night	20.0	*	*	20.0	20.0	10.0
SATURDAY						
Daytime	20.0	20.0	20.0	20.0	6.7	6.7
Night	20.0	*	*	20.0	20.0	10.0
SUNDAY						
All Day	20.0	*	*	20.0	20.0	10.0
SERVICE HOURS (time)						
WEEKDAY						
First Train lv	0400	0441#	0454#	0354	0411	0430
Last Train ar	0120	2115#	2053#	0126	0109	2452
SATURDAY						
First Train lv	0605	0603	0605	0603	0600	0602
Last Train ar	0120	2020#	1957#	0126	0109	2452
SUNDAY						
First Train lv	0804	*	*	0800	0815	0811
Last Train ar	0120	*	*	0126	0107	2452

** NOTE: Chart reflects information as of June 22, 1992. An asterisk (*) denotes a route not in service during the identified time period. A pound symbol (#) indicates that earlier and/or later service is available on other routes. In both instances (* and #), travel is accommodated on other routes with one transfer in downtown Oakland.*

trains are operated at closer headways than during base service in order to provide sufficient capacity to meet higher home-to-work travel demand. During the morning commute, there are 43 trains in operation systemwide, providing service at an average minimum scheduled headway of 3.75 minutes during the peak one hour through San Francisco and downtown Oakland. This same minimum headway service is operated during the afternoon commute period. Peak service currently requires 453 vehicles, 398 online and 55 additional cars used for transition (yard moves) and spare trains. Nearly all Transbay trains are at their 10-car maximum during peak commute hours.

Base Rail Service - Weekdays, Daytime

Base daytime rail service on weekdays consists of 15-minute headways on each of the four routes in both directions: the three Transbay routes between Daly City and Concord, Fremont, and Richmond, and the East Bay route between Fremont and Richmond. The transition to base service begins during the last hour of the morning peak, at approximately 8:00 a.m. Base service continues until approximately 3:00 p.m. at the start of afternoon commute dispatches. Base weekday service requires 36 trains operating on the system and results in the following bi-directional service frequencies: a train every five minutes between Daly City and West Oakland, a train every five minutes between MacArthur and 12th Street/Oakland City Center; a train every 7.5 minutes between Richmond and MacArthur, a train every 7.5 minutes between Fremont and Lake Merritt; and a train every 15 minutes between Concord and MacArthur. Trains stop at all stations along their designated route (skip-stop service is currently not operated). The systemwide average speed, including stations stops, is 36.3 miles per hour. As for all service periods, trains are sized to accommodate demand in compliance with BART's load factor standards.

Base Rail Service - Nights

Base night service consists of bi-directional 20-minute train headways on two routes: Concord-Daly City and Fremont-Richmond. This *two-route X service* requires a transfer in downtown Oakland for trips which at other times are served by the Fremont-Daly City and Richmond-Daly City routes. BART's newest train schedule, which was put into effect on June 22, 1992, accommodates these transfers with a minimum of passenger waiting time via *timed train meets* at 12th Street and MacArthur stations in Oakland. Base night service requires 16 online trains and begins at approximately 7:00 p.m. with the first four terminal-station dispatches (two on each route in both directions). The last four terminal-station train dispatches occur just after midnight. Individual station closings are coordinated with the schedule for these trains as they pass through their respective stations. These last four revenue train dispatches end their runs at approximately 1:30 a.m.

Base Rail Service - Weekends and Holidays

Base daytime Saturday service consists of 28 trains online operating at 20-minute headways on all four routes between the hours of 6:00 a.m. and 7:00 p.m. After 7:00 p.m., base night service is in effect until closing. Base Sunday rail service consists of 16 trains online operating at 20-minute headways on a *two-route X service* schedule (the same as Base Night Service) between the hours of 8:00 a.m. and closing. Except for train lengths and some minor schedule modifications, BART provides the following service schedules on holidays:

Celebrated Holiday	Schedule
New Years Day	Sunday
Martin Luther King Day	Weekday
Presidents' Day	Saturday
Memorial Day	Saturday
July 4th	Saturday
Labor Day	Saturday
Columbus Day	Weekday
Veterans' Day	Weekday
Thanksgiving	Sunday
Day After Thanksgiving	Weekday
Christmas	Sunday

Special Rail Service

BART service is coordinated with major Bay Area events. Additional service for special events is provided in three ways. The first is by lengthening regularly scheduled trains which are less than 10 cars long. This method works well during offpeak times when nearly all trains are less than 10 cars in length, and when BART demand to a particular event does not warrant higher train frequencies. For events which require greater capacity and/or frequency of service, additional trains are placed in operation. This second method of adding service and capacity is typically implemented when the demand for BART associated with an event is sharply peaked such as following the end of a baseball game, rock concert, or other event having a large attendance. The third way BART accommodates service to special events is to provide revenue operations at times when the system is normally closed, such as an early-Sunday morning opening as is done for the annual Bay-to-Breakers foot race in San Francisco. Examples of special BART service include: extended hours of operation on New Year's Eve; longer and more trains to serve athletic/special events at the Oakland Coliseum, U.C. Berkeley, and San Francisco Civic/Convention Center; special early Sunday morning opening and express trains to Bay-to-Breakers in San Francisco, and *Shoppers' Specials* trains each Sunday between Thanksgiving and Christmas.

Express Bus Service

As an interim measure until rail extensions come online, BART provides express bus service on 12 routes within five major travel corridors in Alameda and Contra Costa Counties (Figure 1-5, BART Express Bus Headways and Hours of Service). All express bus service is coordinated with BART rail schedules, and is provided under contract with Laidlaw Transit, Inc. A total of 1,156 free parking spaces are currently provided at four express bus park-ride lots which are located on future extension station sites: North Concord/Martinez (538 spaces), West Pittsburg (213 spaces), East Antioch (252 spaces), and West Livermore (153 spaces).

BART Express Bus Corridors

1. I-80 between El Cerrito del Norte Station and Pinole, Hercules, and Rodeo,
2. SR-4 between Concord Station and Martinez,
3. SR-4 between Concord Station and Pittsburg, Antioch, and Brentwood,
4. I-680 between Walnut Creek Station and Dublin and Pleasanton,
5. I-580 between Bay Fair/Hayward Stations and Dublin, Pleasanton, and Livermore.

FARES

BART fares are computed on a distance-based formula with surcharges for Transbay service, Daly City Station origin or destination (Daly City Station is in non-member San Mateo County), and a speed premium (Figure 1-6, BART Fare Components and Ticket Prices). The base fare is currently 80¢ for the shortest trips and trips within downtown areas. The highest fare is currently $3.00 for the 36-mile Transbay trip between Fremont and Daly City (Figure 1-7, BART Fares and Travel Times). The average rail passenger fare including discounts in FY 92 was $1.35.

BART provides a 90% discount to children between the ages of 5 and 12 (children under 5 can ride free), to persons 65 and over, and to persons with a qualifying medical condition or mobility impairment. Anyone who does not qualify for these discounts can purchase a $32 high-value ticket for $30, for a 6.25% savings.

Additional discounts are provided in conjunction with travel on other transit systems which connect with BART. The combined BART/MUNI Fast Pass allows unlimited use of San Francisco Municipal Railway services and BART within the City of San Francisco. Effective August 1, 1992, the price of the monthly Fast Pass is $32 (up from $30 prior to August 1). The most recent multi-operator fare instruments to be implemented are BARTPlus and Premium BARTPlus, both of which are a combined BART ticket and pass valid for one-half month on BART and other Bay Area transit systems which serve BART rail stations. Special features of these and other fare instruments are summarized in the notes section of Figure 1-6, BART Fare Components and Ticket Prices.

Figure 1-5

BART EXPRESS BUS HEADWAYS AND HOURS OF SERVICE

An Asterisk (*) Denotes No Service Provided During Time Period Shown

	LIVERMORE VALLEY & BAY FAIR & HAYWARD STATIONS				EASTERN CONTRA COSTA & CONCORD STATION				DUBLIN & WALNUT CK STA		RODEO & DEL NORTE	
	U	UL	UP	UX	PE	PE1	P2X	ME	D	DX	J	Q
***HEADWAYS** (minutes):*												
WEEKDAY												
Peak Hour	30	30	20	30	30	30	*	30	*	30	30	30
Midday	30	60	*	*	60	60	*	*	*	60	30	*
Night	60	*	*	*	*	*	60	60	*	60	40	*
SATURDAY												
Daytime	30	*	*	*	*	*	60	*	40	*	30	*
Night	60	*	*	*	*	*	60	60	60	*	40	*
SUNDAY												
Daytime	60	*	*	*	*	*	60	60	60	*	40	*
Night	60	*	*	*	*	*	60	60	60	*	*	*
***SERVICE HOURS** (time)*:												
WEEKDAY												
First Bus lv	0453	0455	0607	0535	0512	0418	2032	0535	*	0437	0453	0518
Last Bus ar	0112	2015	1929	1937	2107	2146	0201	0050	*	0025	0054	2056
SATURDAY												
First Bus lv	0525	*	*	*	*	*	0555	0535	0607	*	0656	*
Last Bus ar	0056	*	*	*	*	*	0210	0047	0111	*	0034	*
SUNDAY												
First Bus lv	0755	*	*	*	*	*	0655	0928	0824	*	1007	*
Last Bus ar	0056	*	*	*	*	*	0155	0027	0111	*	1917	*

Figure 1-6

BART FARE COMPONENTS AND TICKET PRICES AS OF AUGUST 1992

Notes Appear On Following Page

TRIP LENGTH:	Up to 6 miles	80¢
	Between 6 and 14 miles [1]	92¢ + 6.9¢/mile
	Over 14 miles	$1.47 + 4.1¢/mile
SURCHARGE:	Transbay	45¢
	Daly City [2]	52¢
SPEED PREMIUM:	Charge differential for faster or slower than average trips, based on scheduled travel time	±2.5¢/minute
RESULTING FARES:	Range [3]	80¢ to $3.00
	Average fare (before discounts) [4]	$1.52
	Average fare paid (after discounts) [4]	$1.34
RAIL FARE DISCOUNTS & SPECIAL FARES: [5]	Children under 5	Free
	Children 5 through 12 (90% discount)	$1.60 ($16 value)
	Persons 65 and over (90% discount)	$1.60 ($16 value)
	Qualifying handicapped (90% discount)	$1.60 ($16 value)
	Regular adult (6.25% discount)	$30 ($32 value)
	Excursion (entry/exit, same station) [6]	$2.60
SEMI-MONTHLY RAIL/BUS PASS:	BARTPlus (w/ $15 to $50 BART value) [7]	$24-$57 (8 denom)
	Premium BARTPlus (w/ $14 BART value) [8]	$36-$47 (3 denom)
MONTHLY RAIL/ SF MUNI PASS: [9]	BART/MUNI Fast Pass -- (unlimited monthly use of BART and MUNI within San Francisco)	$32
ONE-WAY TRANSFERS TO: [10] **(Issued at rail stations)**	BART Express Bus -- Zone 1	Free (75¢ value)
	Zone 2	40¢ (75¢ value)
	CCC Transit Authority	25¢ (50¢ value)
	Union City Transit	25¢ (25¢ value)
ROUND-TRIP TRANSFERS TO/FROM: [10] **(Issued at rail stations)**	AC Transit -- From BART	60¢ (40¢ value)
	To BART	60¢ (40¢ value)
	SF MUNI, within SF -- From BART	85¢ ($0 value)
	To BART	Free (85¢ value)
	SF MUNI, Daly City Station -- From BART	Free (85¢ value)
	To BART	Free (85¢ value)
BART EXPRESS BUS: (1 Zone/2 Zone)	Children under 5	Free
	Children 5 through 12	15¢/30¢
	Regular Adult	75¢/$1.15
	Persons 65 and over	15¢/30¢
	Qualifying handicapped	15¢/30¢

Figure 1-6 (continued)

BART FARE COMPONENTS AND TICKET PRICES, NOTES

1. Trips over 6 miles within East Bay Suburban Zone (Concord-Orinda, Fremont-Bay Fair, Richmond-Ashby) priced at fare indicated for trips under 6 miles.

2. The Daly City surcharge does not apply to Transbay trips.

3. BART rail fares are computed by automatic fare collection equipment and are rounded to the nearest 5¢. The current range of fares is based on the most recent fare increase (averaging 32%) which occurred on January 1, 1986. Prior fare increases occurred on September 9, 1982, June 6, 1980, and November 11, 1975.

4. The average rail fare before and after discounts includes rail passenger revenue from all fare instruments, including the BART/MUNI Fast Pass. The figures shown are for FY 91.

5. Discounted tickets are sold at outside retail and community outlets through BART's Tickets-To-Go program (as of June 30, 1992, there were 470 BART ticket outlets plus an additional 155 outlets covered under the MTC-sponsored Regional Transit Connection). In-station sales booths at Montgomery, Embarcadero, 12th Street, and Hayward also sell a variety of ticket types. BART's Pass Office sells all ticket types via mail order.

6. There is a three-hour limit on the excursion fare.

7. The semi-monthly BARTPlus ticket was made available starting on April 1, 1991 and is valid for unlimited rides on BART express buses and eight other systems (excludes Transbay and some express bus service) which connect with BART rail. These other systems are: AC Transit, MUNI, SamTrans, Contra Costa County Transit Authority, Santa Clara County Transportation Agency, Union City Transit, Dumbarton Express, and Martinez Link. BARTPlus features a last ride bonus which allows riders to complete one final BART trip of any length with a minimum of 5¢ of stored value remaining on the ticket. Excess remaining stored BART value may be used within a five-day grace period following the last day of the designated half-month.

8. The semi-monthly Premium BARTPlus ticket was made available starting on February 1, 1992. This fare instrument has the same basic features as BARTPlus and includes longer-distance and express services provided by the following Bay Area transit operators: Dumbarton Transbay service, Golden Gate Transit Transbay bus and ferry service, Vallejo Transit bus service.

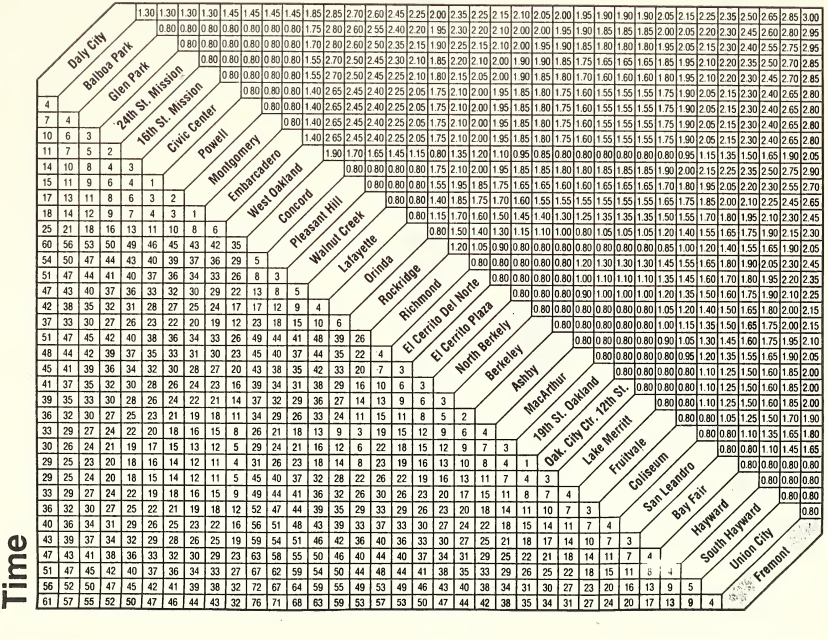
9. The BART/MUNI Fast Pass was made available starting April 1, 1983 and is sold at all San Francisco MUNI pass outlets.

10. Except for the two-part (round trip) MUNI transfers issued in San Francisco stations at a cost of 85¢, all other one-way and round-trip transfers are issued free of charge from vending machines which are located inside the paid area of BART rail stations. Riders needing connecting services can obtain transfers prior to exiting the BART paid area. Additional fares, if required, are paid upon boarding the connecting carrier. This additional fare is shown in the right-hand column. The values shown in parentheses correspond to the discount. [To determine each connecting carrier's base fare, add the additional fare paid on board to the discount.]

Figure 1-7

BART FARES AND TRAVEL TIMES

(Travel Times Reflect The Train Schedule Effective June 22, 1992)



CHAPTER 2

SERVICE AND PROGRAM EVALUATION

SYSTEM EVALUATION VERSUS MISSION AND GOALS

Throughout its history, BART's mission has been to deliver safe, reliable, customer-oriented transportation. With two decades of operational experience under its belt and an additional decade in its engineering and construction phase, BART continues to be guided by those key descriptive words: safe, reliable, customer oriented. Evolution of BART has been greatly influenced by challenges presented on many fronts including those relating to technology, fiscal requirements, and political realities. Notwithstanding, the organization has continually set high standards for itself and has been driven to strive for excellence. Central to this is the importance BART places on nurturing a talented and dedicated workforce, one which is capable of maintaining the vitality of the system while at the same time forging ahead and meeting the challenges of the future. How this is accomplished and to what degree of effectiveness depends a great deal on the policies and processes put in place to bring about positive change.

This evaluation of BART service and programs is structured around the policy framework that guides its operations and development of new services. BART's goals are the starting point, policy statements which provide focus and help establish priorities, as well as provide seed for new programs (see Figure 2-1, BART Goals). How well BART performs is best revealed by the organization's achievements relative to its performance indicators and adopted standards. These, in effect, are measures of success which link actions to desired results. A summary of BART's performance relative to its adopted standards is presented in Figure 2-2 (BART Performance Indicators and Standards, Fiscal Year 1992). The following discussion presents information about BART services and programs as related to the District's eight goals.

Special SRTP topics are discussed as they relate to individual goals. These include: capital program planning and implementation, congestion management planning, contingency planning, DBE compliance and Title VI, elderly and disabled accessibility issues, privatization, and MTC Productivity Improvement Program (PIP) per BART's 1990 Performance Audit and inter-operator coordination/SB-602 based projects. Note that BART's PIP projects are discussed under respective goals to which they relate. A summary of the status of all BART's PIP projects is presented in Figure 2-3 (Status for BART's FY 92 Productivity Improvement Program Projects). A more detailed discussion of ridership, capacity (i.e., load factors), and financial performance follows the goal's section.

Goal 1: Provide Safe, Reliable, and Economical Transportation

BART's first goal follows directly from its mission statement to deliver safe, reliable, customer-oriented transportation. While train performance is a central theme, emphasis is also given to achieving and maintaining high performance standards for all aspects of BART operations. Programs are implemented and actions routinely performed within

Figure 2-1

BART GOALS

1. Provide safe, reliable, high-quality and economical transportation service to the Bay Area community.

2. Deliver user-friendly services to all our customers.

3. Empower employees to function as owners of the BART organization.

4. Provide an environment free of impediments to opportunities for employees and disadvantaged business enterprises, and one which encourages cooperation and develops an organizational team of highly motivated staff.

5. Develop BART services and facilities to expand District markets and capture new revenue sources.

6. Secure and manage the funds necessary to maintain and expand the system and to operate BART according to fiscally sound business practices.

7. Take the leadership role in integrating various features of regional transportation systems in policy, finance, and operations.

8. Build constituencies at all levels of government to support the BART organization and its programs.

Figure 2-2

BART PERFORMANCE INDICATORS AND STANDARD
FISCAL YEAR 1992 PERFORMANCE SUMMARY

PERFORMANCE INDICATORS (a)	ACTUAL	STANDARD	STATUS (b)
1. RIDERSHIP: TOTAL TRIPS	***72,987,888***	***73,524,613***	***NOT MET***
AVERAGE WEEKDAY TRIPS	***249,548***	***252,760***	***NOT MET***
2. CARS AVAILABLE AT 4 AM: A-CARS	93	103	NOT MET
B-CARS	250	268	NOT MET
C-CARS	123	84	EXCEEDED
TOTAL FLEET	466	455	EXCEEDED
3. PEAK 5-MINUTE DELAYS (Per 100 Train Runs): DELAY EVENTS	2.98	3.00	EXCEEDED
DELAYED TRAINS	7.49	8.00	EXCEEDED
4. PEAK PERIOD/PEAK DIRECTION TRANSBAY CAR THROUGHPUT (%)	***97.3***	***97.5***	***MET***
5. LOAD FACTORS: PEAK (Discretionary Trains)	n.a.	1.15	n.a.
OFFPEAK (All Midday & Night Trains)	n.a.	1.00	n.a.
6. PASSENGER ON-TIME PERFORMANCE (%): DAILY	***95.2***	***94.0***	***EXCEEDED***
PEAK	95.3	(c)	n.a.
7. PASSENGER ACCIDENTS (Annual Rate–Incidents/Million Trips)	11.6	17.7	EXCEEDED
8. AFC PERFORMANCE (Incidents/1,000 Trips)	***0.24***	***0.30***	***EXCEEDED***
9. STATION EQUIPMENT AVAILABILITY (%): ELEVATORS	99.8	97.0	EXCEEDED
ESCALATORS	97.2	97.0	MET
10. EXPRESS BUS ON-TIME PERFORMANCE (%)	97.4	95.0	EXCEEDED
11. FAREBOX RATIOS (%): RAIL	***48.7***	***48.0***	***EXCEEDED***
EXPRESS BUS	16.2	16.2	MET
TOTAL OPERATION	46.4	45.7	EXCEEDED
12. SYSTEM OPERATING RATIO (%)	***51.0***	***49.2***	***EXCEEDED***
13. RAIL COST PER PASSENGER MILE (Cents)	***22.2***	***22.7***	***EXCEEDED***
14. REVENUE VEHICLE MILES PER EQUIVALENT BART EMPLOYEE	18,160	16,200	EXCEEDED
15. SYSTEM UTILIZATION (%–Passenger Miles/Revenue Seat Mile)	31.9	31.5	EXCEEDED
16. EMPLOYEE LOST TIME DUE TO INDUSTRIAL INJURIES (%)	0.50	0.50	MET
17. PAID SICK LEAVE (%–Sick Hours Paid/Straight Time Hours Paid)	3.20	3.00	NOT MET
18. DBE PARTICIPATION (%): ALL CONTRACTS	22.6	21.0	EXCEEDED
FEDERALLY ASSISTED CONTRACTS	26.1	21.0	EXCEEDED

Notes:

(a) Key performance indicators appear in bold/italic type.

(b) A standard is judged to be met if the ratio of actual to desired performance is within 0.5% of a minimum-threshold standard (e.g., Total Trips, Passenger On-Time, etc.). The reciprocal of this calculation is taken where the standard is a maximum threshold (e.g., AFC Performance, Rail Cost Per Passenger Mile, etc.)

(c) There is no specified standard for peak period passenger on-time performance. However, BART Board policy calls for the reporting of performance.

Figure 2-3

STATUS FOR BART'S FY 92 PRODUCTIVITY IMPROVEMENT PROGRAM PROJECTS BASED ON 1990 PERFORMANCE AUDIT & INTER-OPERATOR/SB-602

PROJECT TITLE	PURPOSE	JUNE 1992 STATUS	MTC FINDING
Procurement Manual Revision (1990 Performance Audit Project)	Improve parts availability, reduce improper transactions, and decrease processing time.	New procurement manual was completed in May 1992. Recommendations are being implemented.	In compliance.
Limit Cars Out-Of-Service Awaiting Parts (1990 Performance Audit Project)	Improve parts availability, inventory control, and security. Minimize cars out-of-service awaiting parts.	Cars out-of-service awaiting parts totalled 4 in April 1992, down from 14 before project started.	In compliance.
Absence Tracking and Reporting (1990 Performance Audit Project)	Create a monthly absence tracking report which details all paid and unpaid absences.	Report developed and distributed to all managers monthly.	In compliance.
Expansion of Concession Activities (1990 Performance Audit Project)	Increase concessions revenue by expanding retail activities at stations.	Unanticipated cancellation of concessions contract by Host International as of January 31, 1992. Despite this, concessions revenue is above the Performance Audit base.	Cancellation of contract beyond BART's control.
Monitor and Evaluate Promotional Costs (1990 Performance Audit Project)	Link marketing investments with ridership gains.	Marketing efforts focus on offpeak travel. BART's share of Coliseum gate continues to increase (currently 20%). New resident marketing program initiated.	Effort needs additional study.
Concord Station Transit Center (Inter-Operator Coordination Project)	Improve bus circulation, signs, and passenger information; and add bus zones, sheltered walkways, passenger waiting area.	Design for transit center is to begin in December 1992.	In compliance.
Fruitvale Station Transit Center (Inter-Operator Coordination Project)	Improve bus circulation, signs, and passenger information; and add bus zones, sheltered walkways, passenger waiting area.	Project was suspended in September 1991 pending completion of a planning study by the City of Oakland.	Project suspension was beyond BART's control.
Bay Fair Station Transit Center (Inter-Operator Coordination Project)	Improve bus circulation, signs, and passenger information; and add bus zones, sheltered walkways, passenger waiting area.	Bus transfer facility (addition of 15 bus bays and relocation of kiss-ride area) was completed in December 1991. Walkway canopies, waiting area, and signs portion of project are funded under BART's FY 93 CIP.	In compliance.

Figure 2-3 (continued)

STATUS FOR BART'S FY 92 PRODUCTIVITY IMPROVEMENT PROGRAM PROJECTS BASED ON 1990 PERFORMANCE AUDIT & INTER-OPERATOR/SB-602

PROJECT TITLE	PURPOSE	JUNE 1992 STATUS	MTC FINDING
Hayward Station Transit Center (Inter-Operator Coordination Project)	Improve bus circulation, signs, and passenger information; and add bus zones, sheltered walkways, passenger waiting area.	This project was unfunded at the time MTC made its finding. This project is funded under BART's FY 93 CIP. Design is slated to begin in November 1992.	BART is responsible for funding. Project not yet delayed.
El Cerrito del Norte Station Transit Center (Inter-Operator Coordination Project)	Improve bus circulation, signs, and passenger information; and add bus zones, sheltered walkways, passenger waiting area.	Construction is to begin in September 1992 on the bus transfer facility with completion in December 1992. Work on the passenger amenities and street widening improvements portion of the project is to begin in January 1993 with completion in July 1993.	BART should have moved faster on the passenger amenities design.
Walnut Creek Station Transit Center (Inter-Operator Coordination Project)	Improve bus circulation, signs, and passenger information; and add bus zones, sheltered walkways, passenger waiting area.	Design for the transit center is to begin in May 1993 with completion of the project by February 1995. [Construction of the transit center is to begin following completion of the garage which is scheduled for completion in May 1994.]	In compliance.
DBE Utilization Study (Inter-Operator Coordination Project)	Meet standard established by Supreme Court rulings by developing information base in assessing DBE programs, opportunities, eligibility, and utilization.	Final report issued in June 1992. Revisions to DBE policies and program to be made following consultant report review.	In compliance.
Premium BARTPlus Ticket (Inter-Operator Coordination Project)	Create a fare instrument to serve higher-fare, longer-distance commuter connections with BART that are not incorporated into the basic BARTPlus Ticket.	The Premium BARTPlus Ticket was first made available to the public for use on February 1, 1992.	In compliance.

specified programs in an effort to provide the best possible travel environment for BART customers and, too, as a marketing tool to win new customers.

First comes safety, a given, not an issue at BART. Operating procedures adhere to stringent industry standards. BART's Safety Department works closely with the California Public Utilities Commission (CPUC) as well as internally with BART operations, maintenance, engineering, and other departments to ensure continued compliance with all prescribed standards and procedures. Activities in FY 92 included the Safety Department's implementation of a program for more effective accident investigation and follow-up, continued safety training for employees which equals or exceeds CPUC certification standards, and implementation of a new comprehensive safety and environmental protection programs. In March 1992, the American Public Transit Association (APTA) conducted a rail safety audit of BART operations in which BART was found to have an above-average safety program. [BART is a voluntary signatory to these triennial audits.] Emergency preparedness exercises are conducted on a regular basis and involve local fire departments, first aid units, and other emergency service providers.

BART's commitment to safety extends to law enforcement, the charge of its 153-member sworn police force. From the control of illegal parking to deterrence and investigation of serious criminal activities, BART Police use the latest techniques to minimize crimes against persons and property on trains, in stations and parking lots, and other BART facilities and property.

Car maintenance is critical to providing service that is both on time and in accordance with scheduled train capacity. Stringent preventative maintenance standards, efficient parts procurement and inventory methods, and procedures and technical expertise developed over the years allow BART to have a sufficient number of operable, clean, and safe vehicles ready for service each day of the year. During FY 92, BART made an average of 466 vehicles available for service each day by 4 a.m., versus a standard of 455. Recent revisions to BART's Procurement Manual and new procedures implemented this fiscal year in response to the new procedures have helped BART limit out-of-service-vehicles which are awaiting parts to a maximum of four per week. The importance of this is underscored by inclusion of the Procurement Manual update and other efforts to limit cars out of service awaiting parts as two Productivity Improvement Program projects for FY 92 (see Figure 2-3, Status for BART's FY 92 PIP Projects).

Because of the importance of maintaining service per published train schedules, maintenance efforts focus on minimizing incidents which cause train delays. Additional attention to reducing train delays has been implemented this fiscal year. A key objective is to increase the mean-time-between service delays by 23%, from 734 car hours in FY 91 to 900 in FY 92. [The 900 car hour target is equivalent to a train delay every 25,200 car miles, roughly the circumference of the earth at the equator.] The actual level of performance achieved during FY 92 was such that BART experienced a train delay for every 835 car hours. Contributing to this 13.8% improvement over FY 91 is BART's

captive fleet program which was implemented early in FY 92. Under this program, individual cars are assigned to specific maintenance yards. This, in effect, assures better control and attention to vehicle failures which cause delays as yards *take ownership* of cars. BART will continue to make every effort to achieve the 900 hour target as modifications and improvements are made to car doors, brakes, and automatic train control systems.

Train delay rates were favorable relative to BART's standards. During FY 92, 7.5% of peak period trains experienced a delay of five minutes or more versus a standard of 8.0%. Passenger on-time performance, which measures the percentage of riders completing their trips within five minutes of schedules train run times, continues to be in excess of the 94.0% standard, peak service at 95.3% and 95.2% on a daily basis.

Adequate car availability at targeted levels allows BART to schedule capacity when and where needed. Factors which limit train headways and allowable train lengths are constraints which BART must contend with. Reducing the minimum headway is a key objective of BART's Capacity Expansion Program and represents a formidable challenge which is being addressed. Allowable train lengths, on the other hand, are governed by two factors which are unlikely to change. The first is the CPUC requirement of a minimum three-car train, based on track occupancy detection specifications. BART, therefore, must provide a minimum of a three-car train even though demand may call for fewer cars, during late night hours for example. On the upper end, BART is limited to operating trains each consisting of no more than ten cars, the length of station platforms. Maximum train length combined with minimum allowable headway define the *envelope* of capacity BART can achieve. Breaking out of this envelop by reducing headways is the primary objective of BART's Capacity Expansion Program (discussed in Chapter 3, Planned Service and Programs).

Until shorter headways can be achieved, BART continually monitors passenger demand at peak screenlines and schedules available cars to match the demand, when and where possible (i.e., within the headway and train-length constraints). BART's Data Acquisition System (DAS) and automated train history files are the bases of the Passenger Flow Model (PFM) which is used in the analysis and reporting of train occupancy or load factors. Load factors for discretionary trains, those consists which BART can effectively alter within the three-to-ten-car limitation, have averaged 0.93 during the first half of FY 92, versus a target of 1.15. Since there are very few *discretionary* trains operating during the peaks, this is not the load factor riders typically experience. The load factor for some individual peak hour trains is considerably higher, typically in the range of 1.50 for transbay service and 1.20 on the Richmond-Fremont route. Short of being able to achieve a 1.15 load factor for all peak trains, until shorter headways are possible and more cars acquired, a secondary objective is to balance the loads among all routes.

Providing high quality service also means keeping vehicles free of litter and graffiti. BART's Car Cleaning Program has been successful in minimizing this and includes over

12,000 routine cleanings per month and exterior car-brightening of the entire fleet of 589 cars every 20 days. A newspaper recycling program was implemented early in 1992 to promote cleanliness of trains and stations. This program, co-sponsored by the San Francisco Chronicle, provides special recycling bins in each station and messages displayed on trains. BART maintenance activities focus on station cleanliness by performing routine cleaning and repair on a regular basis. Under the Station Rehabilitation Program, which began in FY 91, four of the systems 34 stations have been reconditioned by repainting, refinishing, relandscaping, and providing an overall facelift to facilities that are entering their third decade of service. These stations include: Concord, Fruitvale, MacArthur, and North Berkeley.

Efforts to provide the best possible service at high standards while achieving economies of scale have led BART to privatize some functional aspects of its operations where costs of outside services are less than could be provided by the District. On a contract dollar basis, BART's express bus service (operated by Laidlaw Transit, Inc.) constitutes the largest budget line item under privatization. Selected system cleaning and maintenance activities are other functional areas for which BART has entered into contracts with outside providers for services. Figure 2-4 (BART Privatization, Services Provided Under Contract in FY 92) summarizes the services provided to BART under contract with outside firms.

Goal 2: Deliver User-Friendly Service

The key qualifier in BART's mission, *customer oriented*, dictates delivering the kind of service that's efficient and easy to use. Over the past two years, more emphasis has been given to doing just that. An important part of this effort is BART's participation in the Metropolitan Transportation Commission's (MTC) Regional Transit Coordination Program (in compliance with SB-602) which seeks to improve the availability of transit information, coordination of fares, and simplify inter-operator transfers. Most of these activities are presented under *Goal 7* which addresses regional service integration.

Providing user-friendly BART service means reducing or eliminating the barriers which, if left unattended, lead to decisions to not use the system. To help promote user-friendly service, new standards have been set and new training programs begun in FY 92. How BART can best serve its riders by improving customer relations is the key focus. Station agents, BART Police, other front-line staff, and behind-the-scenes personnel as well receive training on customer interaction, confrontation avoidance, and other methods to help staff respond in a positive and helpful way to customer needs in a variety of situations.

When riders need information or other form of assistance, recognition of who to turn to is not always readily apparent. In response to this concern, BART has set a new standard which specifies that 99% of all station agents be in uniform and wear a

Figure 2-4

BART PRIVATIZATION
SERVICES PROVIDED UNDER CONTRACT
FY 1992 BUDGET

EXPRESS BUS SERVICE	$6,608,000
TRACTION	995,781
BART SHUTTLE BUS SERVICE	595,000
SEAT CLEANING	333,440
WHEEL RELINING	263,000
WEED ABATEMENT	144,000
GRAFFITI REMOVAL	138,600
ESCALATOR MAINTENANCE	133,272
PARKING LOT SWEEPING	111,240
ROLLER BEARINGS	110,000
BRAKE LININGS	100,000
WINDOW WASHING	42,000
PIGEON CONTROL	39,750
COMPRESSOR CRANKSHAFTS	36,000
WHEEL REMOVAL	18,000
PEST CONTROL	15,260
TOTAL	**$9,683,343**

nametag. Equally as important, is that stations be adequately staffed. An additional standard was established in FY 92 which specifies that 96% of all station agent booths be staffed, or if in the case of a brief absence, the booth must have information displayed which identifies when an agent is expected to return.

The importance of having information readily available for customers use regarding BART train and express bus service schedules, fares, transfers, as well as how to connect with other transit lines has led to many improvements over the years. Prime examples of this are the large train schedule display boards on the train platform level of each station and the information kiosks on station concourse levels. Numerous brochures are made available to riders at bins located near station agents booths, entry/exit gates, kiosks, and other locations. The brochures are updated as needed and provide information concerning how to use the system, fares, destinations and important points of interest the system serves, and where discount tickets may be purchased. Most of the brochures are available in Cantonese, Spanish, and Tagalog. BART is currently developing a standard for maintaining brochure stock and their availability to riders. An additional information item is BART's *Dear Rider* letter which is aimed at communicating current BART related events, including informing riders of a new train schedule, special service (i.e., Bay-to-Breakers), or on rare occasions, providing explanations concerning service delays or unanticipated service revisions. These letters are normally produced once each month and are made available at entry/exit gates at all stations. Under a pilot program, the train destination signs on the platforms of downtown San Francisco and Oakland stations have been replaced with large video display monitors. In addition to train destination information, the monitors provide passengers with information about BART and other items including news headlines, weather, and stock reports. This service is provided through a contract with Metrovision for which BART receives revenues through the sale of advertisements shown on the monitors.

BART is particularly proud of its ongoing efforts to provide fully accessible transit to persons with disabilities. From an early point in its history, BART has made every effort to accommodate the needs of elderly and disabled persons. Design standards and features of stations and vehicles are evidence of this concern for providing a safe and accessible travel environment. Stringent performance standards and preventative maintenance for station elevators and escalators help keep this vital equipment in operable, safe condition for all BART riders, but is most critical in making BART a fully accessible system. Elevator availability is typically above 99% and during FY 92 averaged 99.8%. By comparison, escalator availability during FY 92 averaged 97.2%.

The BART Accessibility Task Force meets regularly with BART staff for the purpose of identifying projects which may further enhance system accessibility. A key product of the Task Force's efforts in the past two years has been the formulation of a Multi-Year Master Plan which identifies specific projects and improvements. During FY 92, a major effort went into reviewing and formulating policy in response to the Americans with Disabilities Act (ADA) of 1990. One policy provision of ADA is that fixed-route transit systems must

develop a plan to provide complementary paratransit service even if the system is fully accessible. BART's Complementary Paratransit Service Plan was finalized in January 1992 and includes a five-year timetable and budget. [Additional details of the plan are present in Chapter 3, Planned Service and Programs.]

Goal 3: **Empower Employees To Function As Owners Of BART**

The quality of service as experienced by BART's customers is a direct reflection of the people who deliver it: BART's 2,600+ employees. For this reason, carrying out programs to promote professional development and taking responsible actions are an important part of how BART nurtures its human resources, and at the same time, improves the quality of service. Specific standards have been developed for training managers, supervisors, and front-line employees. Due recognition is given with regard to employee performance, suggestions, service history, and attendance records.

In response to one of the 1990 Performance Audit recommendations regarding attendance, BART enhanced its capabilities in the area of tracking both paid and unpaid absences. The development of BART's *Monthly Absence Tracking Report* was included as a PIP project for FY 92 (see Figure 2-3, Status for BART's FY 92 PIP Projects). The report was first made available in December 1991 and will be used to improve employee scheduling and staffing requirements, as well as to gain a better understanding of the level of off-duty time and how it is charged. All paid and unpaid absence hours are reported by employee, with summaries produced by cost center, department, executive office, and District totals. Managers receive on a monthly basis portions of the report which are applicable to their cost center(s). Efforts to motivate and empower employees are supported by programs discussed under Goal 4 which follows.

Goal 4: **Provide An Environment Free Of Impediments To Opportunities For Employees and Disadvantaged Business Enterprises, One Which Encourages Cooperation And Develops A Highly Motivated Organizational Team And Staff**

Related to empowering employees are programs to promote career development within the organization, and others to provide a level of disadvantaged business enterprise (DBE) involvement coincident with BART's affirmative action plan and objectives.

With regard to internal career development, BART conducts on a quarterly basis career seminars for employees. The purpose of these seminars is to enhance employee knowledge of opportunities at BART, as well as communicate what training resources and programs are available and to provide individual career counseling. Other programs, including BART's Employee Assistance Program and Return-to-Work Program, provide

employees with resources for addressing on-the-job and personal problems which may impact job performance.

BART's Affirmative Action Program is guided by policies and specific targets with regard to representation of women and minorities within fifteen job categories. BART's engineering intern program was implemented this fiscal year to help promote upward mobility of women and minorities. An update of BART's Affirmative Action Plan for achieving the current representation targets, and for identifying future targets, is being developed using 1990 U. S. Census Bureau data. This document is expected to be available during the latter half of 1992.

An important part of BART's Affirmative Action Program is to provide opportunities for women and minority owned business enterprise to participate in District contracts. BART has had a long-standing objective to encourage efforts to achieve 21% minority business enterprise participation for all District contracts which have been determined to have disadvantaged business enterprise (DBE) opportunities. During FY 92, actual DBE participation on a contract-dollar basis was 22.6% for all District contracts, and 26.1% for federally assisted contracts. BART is also the lead agency for the Regional DBE Utilization Study, an effort which has been identified as a PIP projects for FY 92. The focus of this project is to develop an information base for participating agencies use in assessing DBE programs, federally funded contracting opportunities, eligible DBEs, and results of DBE utilization. Additional details of this effort are presented in Figure 2-3 (Status for BART's FY 92 PIP Projects).

A related activity with regard to Affirmative Action is BART's Title VI program, in compliance with Title VI of the United States Civil Rights Act of 1964. The objectives of this program are to ensure that Federal Transportation Administration (FTA) assisted benefits and services are made available and are equitably distributed without regard to race, color, or national origin. The most recent Title VI assessment submitted to FTA by BART was in September 1989. The next update will be completed and forwarded to FTA in August 1992. Subsequent updates are planned every three years thereafter.

Goal 5: Develop BART Services And Facilities To Expand District Markets And Capture New Revenue Sources

BART's marketing efforts have traditionally focused on offpeak riders since it is during this service period that additional capacity can be made available to accommodate substantially higher demand. BART's FY 92 Productivity Improvement Program project to *Monitor and Evaluate Promotional Costs* attempts to link promotional dollars spent to revenue gained as a result of riders who use the system because of an advertisement they heard or read (for additional details, see Figure 2-3, Status for BART's FY 92 PIP Projects).

The use of print and broadcast media for advertising BART services has been augmented by cooperative marketing efforts with event sponsors. This has been particularly successful for large sporting events held at the Oakland Coliseum including the Oakland A's and Warriors. BART's share of the attendance gate has continued to increase over the years, and is now at about 20% (i.e., 20% of all attendees use BART to go to an event at the Coliseum). Special train service, such as to the annual *Bay-to-Breakers* race in San Francisco, and *Shoppers' Specials* during the holiday season, have been developed and marketed to promote increased offpeak system use and additional revenue. [The farebox ratio for the 1991 Bay-to-Breakers service was 149%.] BART marketing efforts have more recently focused on a program to get new residents to the Bay Area to try BART, and hopefully use the system on a regular basis.

Improving services and tapping new revenue sources is extended to BART's express bus system. Since privatization of this part of BART operations in 1991, and route streamlining/schedule coordination with rail, the farebox ratio for express bus service has continued to rise. Whereas the express bus farebox ratio stood at 10-12% a few years ago, the current level is in excess of 16% (additional details with regard to BART's express bus service follow under Goal 7, below).

Improving rail service, either by providing more frequent trains or by extending lines to areas not currently served, strikes at the heart of BART's efforts as documented in this Short Range Transit Plan and accompanying Capital Improvement Program. Headway constraints and how best to overcome them have been the focal point of BART's Capacity Expansion Program for over a decade. The complexity and magnitude of the projects which are needed to provide more frequent service have required a major effort of both time and resources. The addition of the third track through downtown Oakland (the KE track), the Daly City tailtrack and maintenance yard, the 150 new C-cars, and most recently, the March 1992 signing of a purchase agreement with Morrison-Knudsen for 80 more cars (with an option to buy up to an additional 170 cars, for a total of 250 new cars) are products of this program. With much work left to complete, this effort continues with the principle objective of putting key system components in place which will enable the current minimum scheduled headway of 180 seconds to be reduced to at least 135 seconds, and possibly even further to 120 seconds. Equally as important, is the capability of the new system components to support 11 new stations and 32 miles of extensions which will be phased into operations between mid 1995 and 2002.

Capacity expansion and extensions activities have increasingly become more interdependent as the time horizon for turning on new service quickly approaches, and the details of both efforts must be worked out using a systems approach. The first three extension projects are now under construction, with groundbreaking having taken place in October 1991 for the Dublin/Pleasanton extension and in May 1992 for the Colma extension. Environmental analyses and preliminary engineering are currently underway for an extension from Fremont Station to Warm Springs in southern Alameda County, and

for an extension from Colma Station to San Francisco International Airport in San Mateo County.

Efforts related to the implementation of extensions beyond phase I have also progressed. The West Contra Costa Alignment Alternatives Study is to be completed in the Fall of 1992. The focus of this effort is four potential alignments for an extension to the vicinity of Crockett. BART is working closely with the Port of Oakland for the purpose of advancing a fixed-guideway connection to Oakland International Airport. Steps have been taken to begin a study of turnkey implementation of the project. Working with local agencies and planning committees, BART is also monitoring efforts with regard to phases II and III extension projects which are identified in BART's Extensions Staging Policy for future implementation (refer to Figure 3-15 in Chapter 3).

As involved as BART is with efforts to increase capacity and extend the system, this has not overshadowed the need for implementing improvements to other aspects of BART service. System access is a prime example, where providing sufficient parking and coordinating services with other transit providers is basic to expanding and tapping new markets. Fiscal year 1992 began with plans to add 1,200 new parking spaces to BART's July 1, 1991 inventory of 29,561 parking spaces at stations. The paving of the Saint Charles Street lot at Daly City Station (which opened in January 1992) added 291 spaces. This in addition to the opening of the Pleasant Hill parking structure (1,200 spaces) in May 1992, resulted in exceeding this target (refer to Figure 1-3, BART Parking Space Inventory). BART's access program is by no means limited to parking. Coordination of transit services is a major focus of attention and is highlighted in BART's FY 92 Productivity Improvement Program. The details of this are presented under Goal 7 which addresses transit integration.

Other BART programs focus on efforts to capture new sources of revenue. This includes the sale of excess land BART owns (which provided for just over one million dollars to BART's capital budget in FY 92), leasing of space in stations for concessions, right-of-way leasing for fiber optics facilities, and ground leases for joint development projects. *Expansion of Concessions Activities* is one of BART's FY 92 PIP projects which was identified as the result of the 1990 Performance Audit. While the cancellation of the concessions contract (effective January 31, 1992) with Host International was unanticipated, in FY 92 BART exceeded the Performance Audit's target of increasing concession's revenue by 10% over FY 90. The actual increase over FY 90 was 30%, with concessions revenue coming in at $1,095,502 versus $843,230 two years ago (for additional details see Figure 2-3, Status for BART's FY 92 PIP Projects).

Goal 6: **Secure And Manage Funds Necessary To Maintain And Expand The System And Operate BART According To Fiscally Sound Business Practices**

Increased competition for limited local, state, and federal funding has resulted in BART having to take a more aggressive role in advocating and securing resources for implementing needed capital improvements. Rehabilitation of the 20-year old basic system alone is estimated to cost $678 million. This is money that will be needed over the next ten years to keep the *current system* in top condition. Implementation of all the phase I extensions pushes BART's funding needs up an additional $2.0 billion that will be required over the next ten years. The process for identifying projects, developing implementation schedules based on priorities, and project funding drives BART's capital program. The companion document to this Short Range Transit Plan, BART's 1992 Capital Improvement Program (CIP), discusses this process and identifies the projects and funding required for the delivery of service improvements through the fiscal year 2002 as described in this document.

BART's Department of Government and Community Relations (G&CR) oversees the District's efforts with regard to legislative advocacy and procurement of capital program funding. During FY 92, G&CR staff have worked closely with the California Transit Association and MTC to develop legislation for streamlining the administrative process for state funding. At the federal level, efforts have included the American Public Transit Association's (APTA) legislative conference and meetings with key legislators regarding transit funding. This is particularly timely given the landmark Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 which provides increased Congressional authorizations for transit funding. BART is improving both how its funding needs are identified and communicated by strengthening the processes under which its capital program and operating budgets are formulated. This includes educating managers about federal, state, and local grant requirements and providing them with customized financial reports; improving the CIP's project descriptions, justifications, and funding/cash flow schedules and sources; and promoting consistency and continuity in the use of information technology for reporting project development and implementation status. BART's Project Tracking System has been cited as an important step toward improving how the implementation status of a complex capital program can be accurately tracked. [This project was included in BART's Productivity Improvement Program for FY 91.]

To ensure that BART utilizes the funds it does receive to the public's best advantage is a key function of the District's Department of Internal Audit, which was created last fiscal year. During FY 92, this department undertook audits of all major BART financial activities and transactions, as well as conducted audits with respect to contracts, performance, fraud, waste, and abuse.

Goal 7: **Take The Leadership Role In Integrating Various Features Of Regional Transportation Systems In Policy, Finance, And Operations**

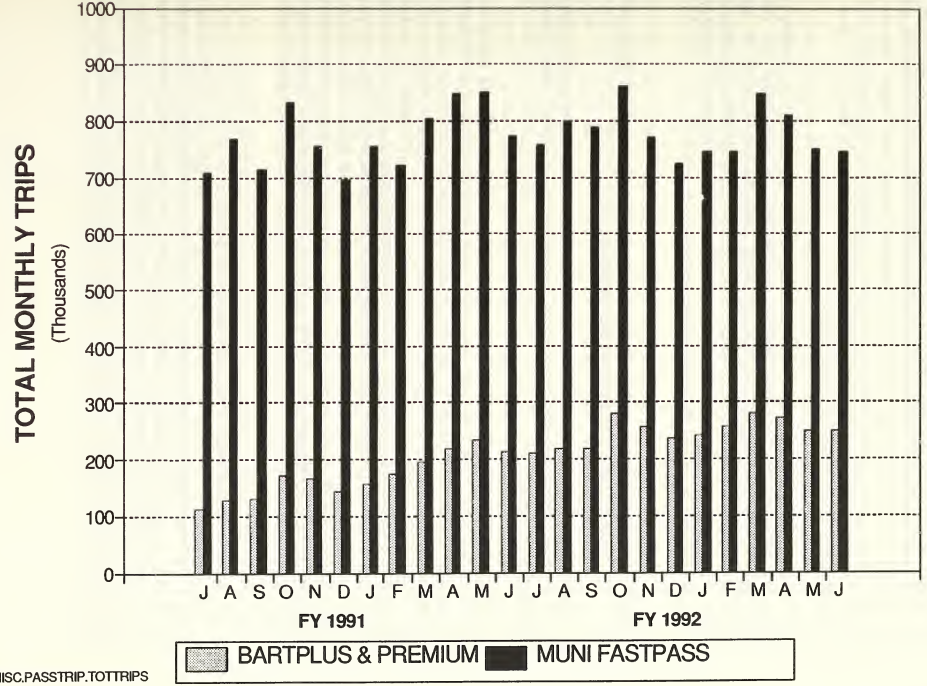
With just over 71 miles of double-mainline track currently and 32 more to be added in the next ten years, BART provides a common thread linking over a dozen local and long-distance ground transportation providers. With future connections to both San Francisco and Oakland International Airports, this number quickly multiplies by adding all the airlines serving these two facilities. BART's role in the region, by its very nature, is to join places by providing quality, car-free accessibility. BART, however, cannot serve all places directly and is, therefore, only as strong as its ties to where people come from and want to go. *Accessibility* is the key, regardless of mode. While parking is very important, for the region to maximize its investment in BART (as well as for its investment in all forms of public transit) and to achieve clean air standards, it is of a paramount concern that the Bay Area's transit systems function as an integrated whole to promote increased ridership and reduced automobile dependence.

The importance of this has led BART to implement projects which make using transit easier, whether in regard to coordinating schedules and fares or providing or better information for transit connections. The Inter-Operator Coordination/SB-602 section of BART's FY 92 Productivity Improvement Program (PIP) contains seven projects for improving transit access to BART. Six of these are transit centers for the following stations: Bay Fair, Concord, El Cerrito del Norte, Fruitvale, Hayward, and Walnut Creek. The transit center projects are all similar in scope in that each calls for increasing the number of bus loading zones, providing safe and fast circulation of buses, adding sheltered walkways, and improving signs and availability of information. [Refer to Figure 2-3, Status for BART's FY 92 PIP Projects.]

The remaining SB-602 PIP project is the Premium BARTPlus Ticket, which was implemented in February 1992. This is a bi-monthly single fare instrument which permits unlimited riding on participating transit systems which connect with BART, and contains BART stored value as well as bonus ride features (refer to Figure 1-6, BART Fare Components and Ticket Prices for additional details). Premium BARTPlus is the latest multi-operator/single-fare instrument to be implemented, and includes local and longer-distance transit services in the Bay Area. Other multi-operator tickets which were implemented prior to Premium BARTPlus include the monthly BART/MUNI Fast Pass (available since April 1983) and the bi-monthly BARTPlus ticket (available since April 1991). Approximately 13% of weekday travel on BART is made with the BART/MUNI Fast Pass. An additional 5% of weekday trips are associated with the BARTPlus. Less than 0.1% of all weekday trips are made with the Premium BARTPlus owing to the relative newness of this fare instrument and its much more limited market relative to the lower cost BARTPlus. Figure 2-5 (Inter-Operator Fare Instrument Ridership, BART/MUNI Fast Pass and BARTPlus/Premium BARTPlus) summarizes the ridership data for both the BART/MUNI Fast Pass and BARTPlus including Premium BARTPlus.

Figure 2-5

INTEROPERATOR FARE INSTRUMENT RIDERSHIP



HISTMISC.PASSTRIP.TOTTRIPS

BART has been diligently working to implement TransLink which will be a new *universal* fare instrument valid on participating Bay Area transit systems. TransLink, which will have magnetically encoded fare information similar to BART tickets, will initially be placed in service by January 1993 on BART, BART express buses, and buses operated by Central Contra Costa Transit Authority (CCCTA). Expansion of this fare instrument will be dependent upon its success on this limited basis, and interest on the part of other Bay Area operators to participate in the program.

BART is also involved in the coordination and integration of transportation services in the Bay Area as evidenced by the District's participation in emergency and energy contingency planning, including interim and future efforts to improve and or replace damaged and/or destroyed freeways due to the October 1989 Loma Prieta Earthquake--(with Caltrans as lead agency), and State mandated county congestion management planning (with the individual counties as lead agency).

Goal 8: Build Constituencies At All Levels Of Government To Support The BART Organization And Its Programs

As a publicly funded agency, one whose Board of Directors are locally elected, BART is well positioned to receive and respond to public concerns regarding the current state and future of the system.

In addition to communication via Board-related processes, BART has implemented important programs aimed at both educating and promoting dialogue between the organization and outside concerns be they individuals, special interest and professional groups, small businesses, or large corporations. The BART Speaker Bureau Program was established in 1990 to respond to requests for information, usually in the form of presentations before special interest groups. Specific interests and topics are identified for each individual request and a knowledgeable BART staff member, drawn from a pool of speakers, is selected for addressing the group. This program is instrumental in communicating BART initiatives and promoting support for the system. Augmenting the Speaker Bureau is a program which offers special tours of the system. Depending upon particular interest, this includes inspection of BART Central Control, maintenance shops, and other key system facilities.

With three extension projects now under heavy construction, communities are requesting more information to prepare for construction-related changes and to address their impacts. In response to these concerns, BART is implementing a comprehensive community relations program in conjunction with the phase I extension projects. Community service centers will be opened in each extension corridor (Castro Valley, North Concord, and Colma) to provide this level of information. A community relations representatives dedicated to respective corridors will also be part of the staff for the centers.

As stated under Goal 6 (secure and manage funds for maintenance and expansion), BART's Government and Community Relations Department keeps abreast of legislative matters and formulates plans for advocating support for BART initiatives.

EVALUATION OF RIDERSHIP

BART ridership grew at a modest pace over the past year which was marked by a net loss of jobs in the region due to the recession. Out migration of employers from the regional core, downtown San Francisco in particular, to suburban areas also continued. Despite the recession and job shifts, total annual trips on the BART were 1.5% higher in FY 92 versus the prior fiscal year. Average weekday travel was up 0.8% from 247,456 trips to 249,548; system use on Saturdays went up 0.1% from an average of 108,099 to 108,179 trips, with Sunday's average increasing 3.5% from 65,779 to 68,111 trips.

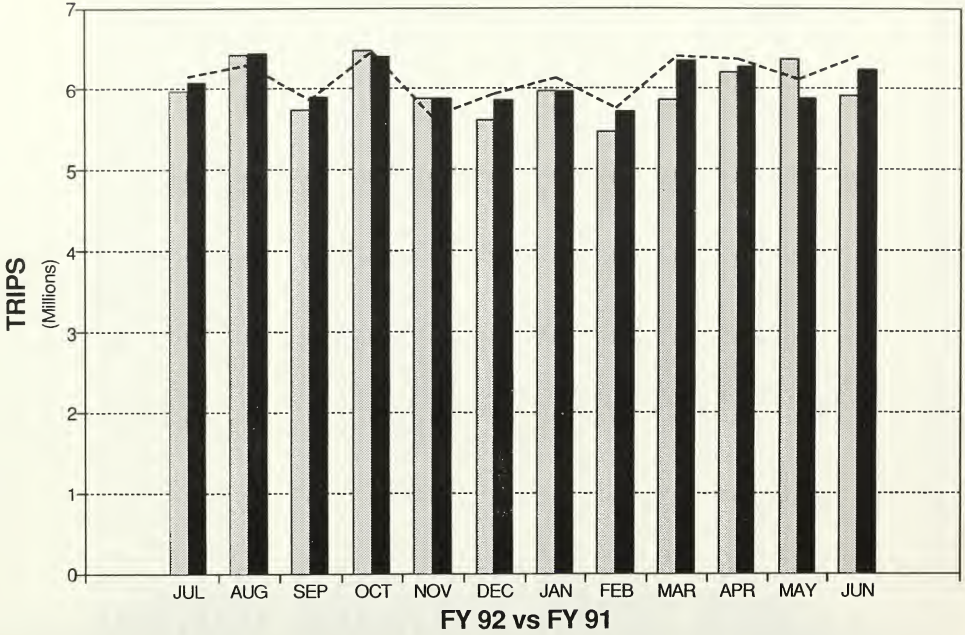
Figure 2-6 (Total Monthly Rail Trips) identifies total monthly BART ridership for FY 91 and FY 92. Also identified is the budgeted ridership for FY 92. As shown, total monthly ridership this fiscal year is roughly at or above respective months last year, with the exception of May 1992 which was 7.5% below May 1991. March 1992, on the other hand, shows a substantial gain of 8.8% over March 1991. Contributing to this increase was BART travel to the Oakland Coliseum for the World Figure Skating Championships which were held over a five-day period in March 1992. For this event, BART provided extra capacity by lengthening scheduled trains and placing additional trains in service. Total trips on BART during FY 92 amounted to 72,987,888. This is 0.7% under a budgeted figure of 73,524,613 trips.

Showing a similar trend to rail ridership is that for total trips on BART express buses. Figure 2-7 (Total Monthly Express Bus Trips) identifies the monthly ridership for this service. In all months except December and May, the relationship of FY 91 to FY 92 levels mirrors that for rail. For December and May, this pattern is reversed with FY 91 being higher. Rail ridership showed a gain in December 1991, due primarily to holiday shopping and the extra train service provided. December 1991 express bus ridership, however, was substantially below December 1990's. Express bus ridership was 1.9% higher in FY 92 compared to FY 91 (2,104,219 trips in FY 92 versus 2,065,947 in FY 91).

Figure 2-8 (Average Weekday Rail Trips) identifies average weekday rail ridership by month for FY 91 and FY 92 and the FY 92 forecast. Similar trends are evident as for total trips noted above. During FY 92, weekday ridership averaged 249,548 trips versus a forecast of 252,760 (98.7% achievement). The split between peak and offpeak system use is shown in Figure 2-9 (Average Weekday Peak Period Rail Trips) and Figure 2-10 (Average Weekday Offpeak Rail Trips). Of note are the offpeak ridership gains made in December 1991 and March 1992 relative to the same months one year earlier. Increased marketing of BART's *Shoppers' Specials* trains provided on the five Sundays between Thanksgiving and Christmas (with direct transbay service on three routes versus regular

Figure 2-6

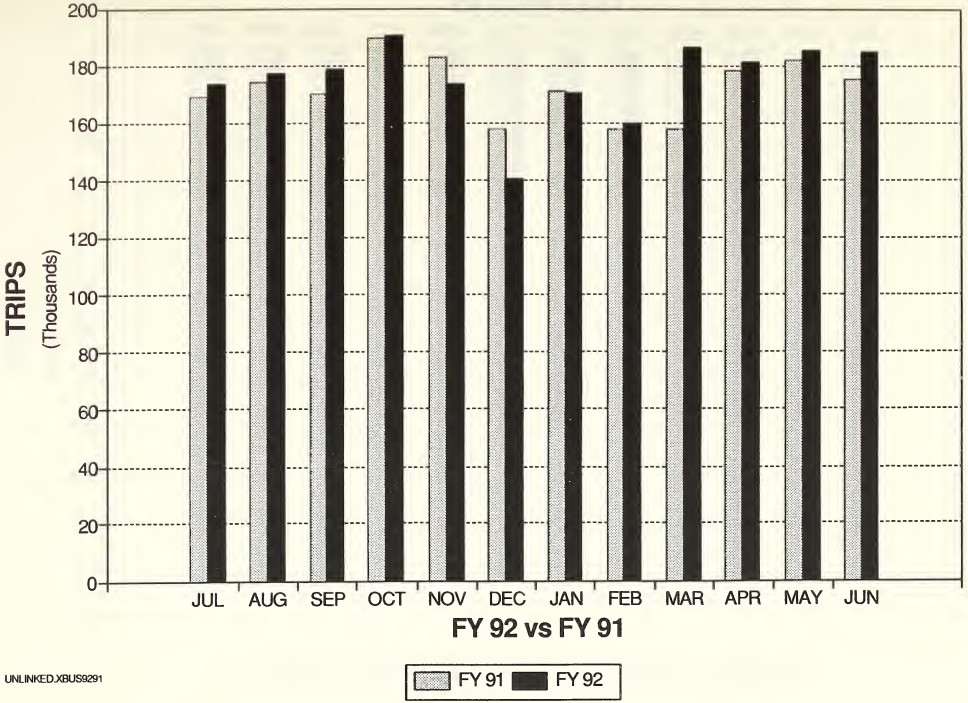
TOTAL MONTHLY RAIL TRIPS



TOTTRIPS.TOT9291

Figure 2-7

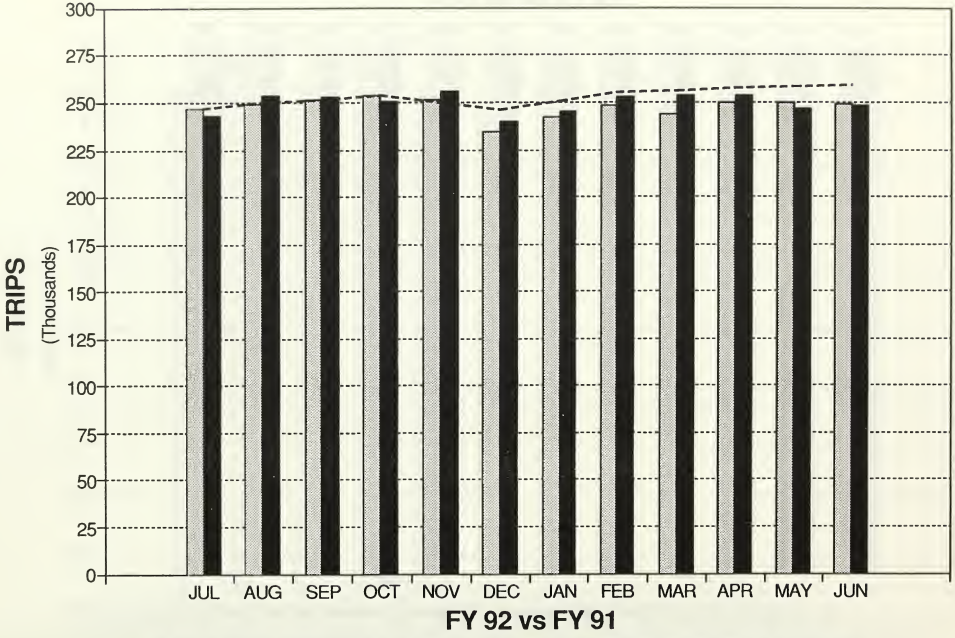
TOTAL MONTHLY EXPRESS BUS TRIPS



UNLINKED.XBUS9291

Figure 2-8

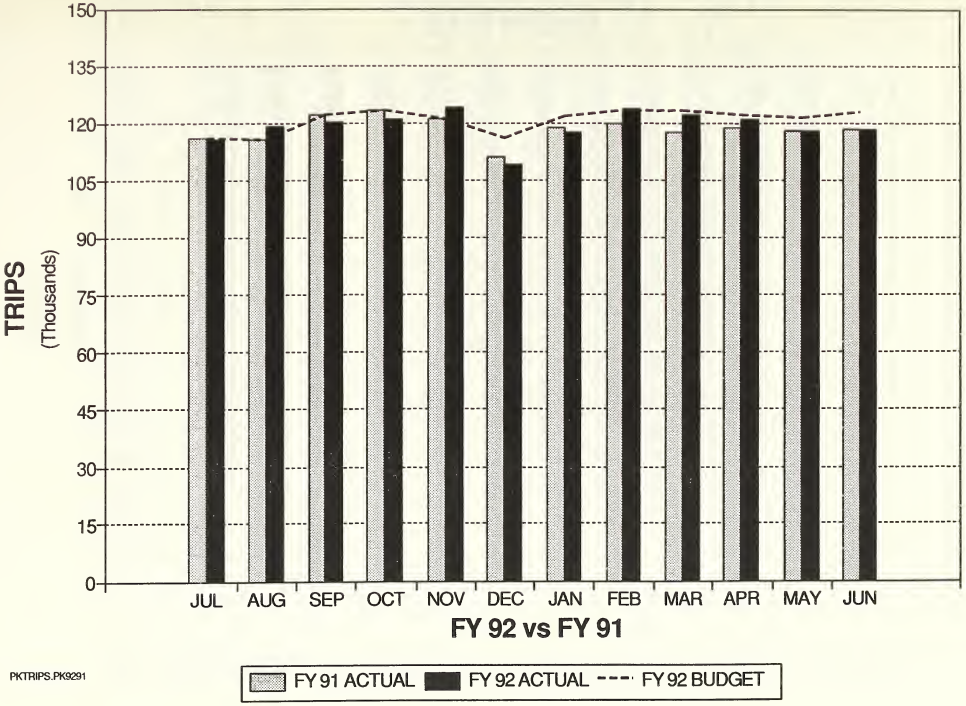
AVERAGE WEEKDAY RAIL TRIPS



WDTRIPS.WD9291

Figure 2-9

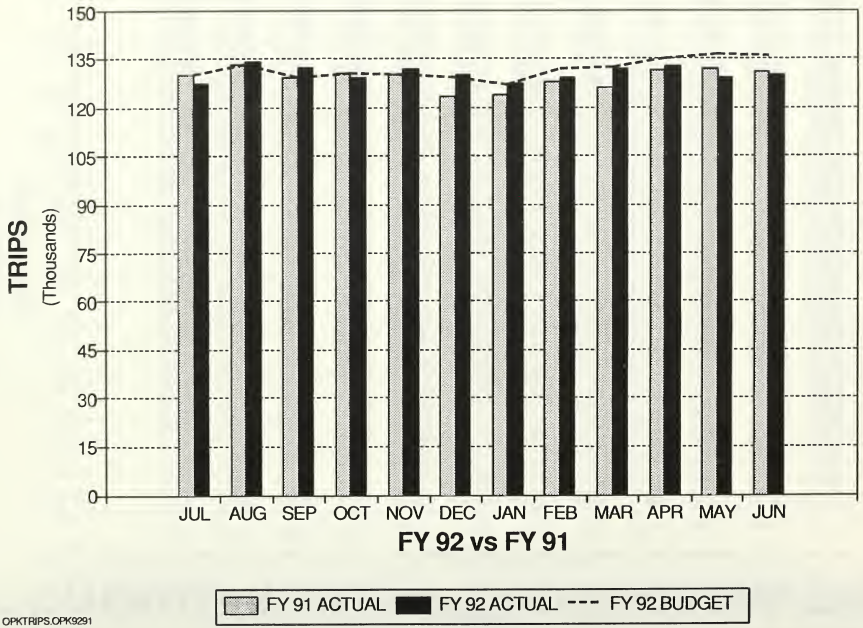
AVERAGE WEEKDAY PEAK PERIOD RAIL TRIPS



PKTRIPS.PK9291

Figure 2-10

AVERAGE WEEKDAY OFFPEAK RAIL TRIPS



OPKTRIPS.OPK9291

Sunday service of one transbay route) contributed to this gain. Stepped up marketing efforts which have focused on Oakland Coliseum events are key factors in these gains.

During FY 92, BART ridership for the four-hour peak period (two hours during the morning commute plus the two hours in the afternoon) averaged 119,082 trips, or 47.7% of typical weekday ridership. Offpeak ridership on weekdays in FY 92 averaged 130,466 trips, or 52.3% of average weekday system use. Compared to forecast, peak and offpeak BART ridership in FY 92 was 98.6% and 99.0% of fiscal year forecasts, respectively.

Weekend BART use continues to make substantial gains, particularly for Sunday travel (refer to Figure 2-11, Average Saturday Rail Trips; and Figure 2-12, Average Sunday Rail Trips). Marketing efforts promoting offpeak travel and special service for major Bay Area events have contributed to this favorable trend. Saturday ridership during FY 92 averaged 108,179 trips, or 98.6% of a forecast of 109,740. Sunday's average was 68,111, or 4.7% above a forecast of 65,044 trips.

Of special note is the gain made with respect to MUNI Fast Pass travel on BART. Despite a 7.1% increase in the Fast Pass price, from $28 to $30 effective August 1991, BART trips made with the Fast Pass continued showed gains over FY 91 on a month-to-month basis through March 1992. This is seen in Figure 2-13 (Average Weekday Fast Pass Trips), Figure 2-14 (Average Saturday Fast Pass Trips), and Figure 2-15 (Average Sunday Fast Pass Trips) which summarize Fast Pass ridership data for average weekday, Saturday, and Sunday. It should also be noted that MUNI implemented a 13.3% increase for its single payment cash fare, which went from a base of 75¢ to 85¢, also beginning in August 1991. Experience has shown that the use of the Fast Pass on BART is directly related to the disparity between the MUNI's base fare and the price of the Fast Pass. MUNI fare increases which favor a shift to increased Fast Pass purchases and use (because the Fast Pass is made to be an increasingly better buy), result in higher levels of intra-San Francisco BART ridership with this fare instrument.

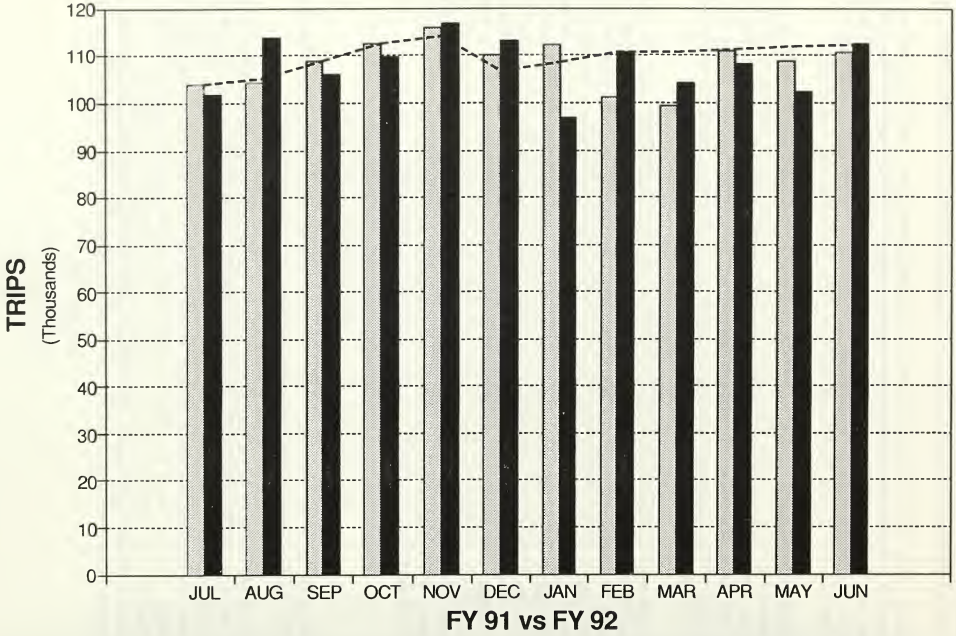
EVALUATION OF DEMAND VERSUS CAPACITY

[The analysis in the following section is based on BART's train schedule which was in effect prior to June 22, 1992.]

One of BART's basic service objectives is to provide adequate capacity such that the ratio of onboard passengers to seats (i.e., load factor) averages 1.15 during peak periods. Efforts to achieve this objective are often precluded by headway constraints, which dictate maximum train frequencies, in conjunction with BART's ten-car maximum allowable train length. The net result is additional capacity cannot be provided, even when cars are available, until headways can be reduced. This is precisely the objective of BART's Capacity Expansion Program. In advance of implementing higher frequency and capacity service, trains are sized to achieve the 1.15 load factor objective for discretionary trains.

Figure 2-11

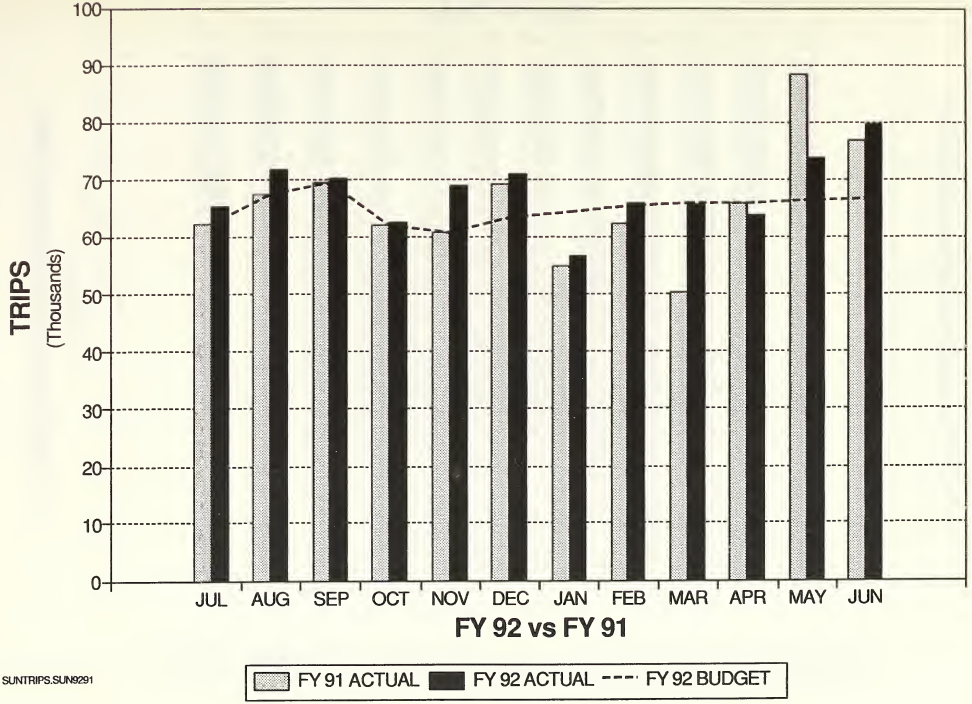
AVERAGE SATURDAY RAIL TRIPS



SATTRIPS.SAT9291

Figure 2-12

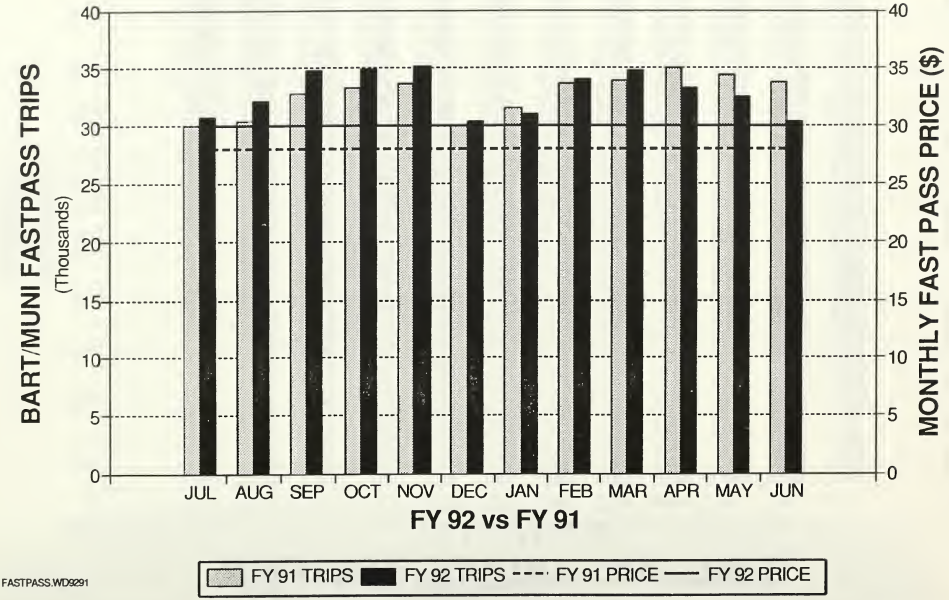
AVERAGE SUNDAY RAIL TRIPS



SUNTRIPS.SUN9291

Figure 2-13

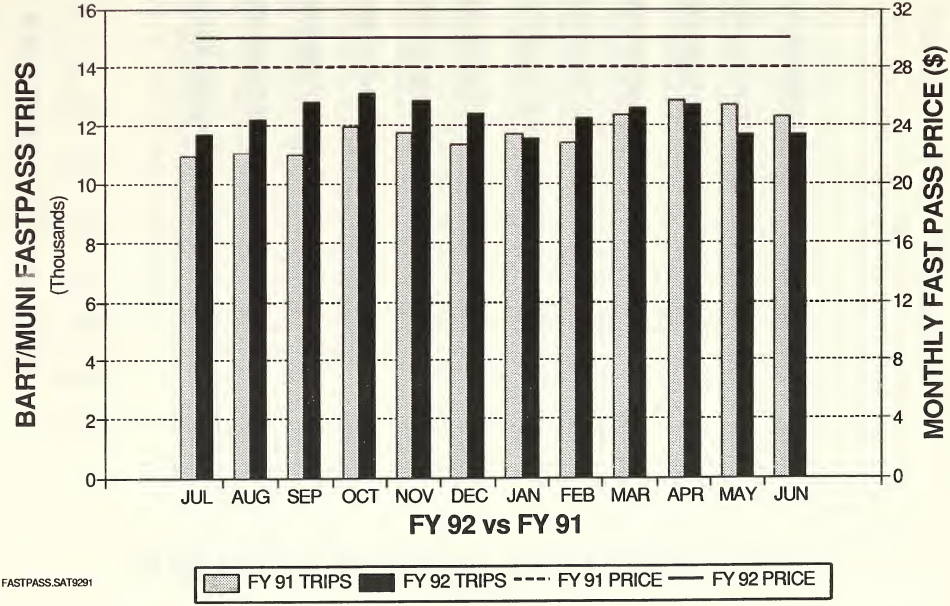
AVERAGE WEEKDAY FAST PASS TRIPS



FASTPASS.WD9291

Figure 2-14

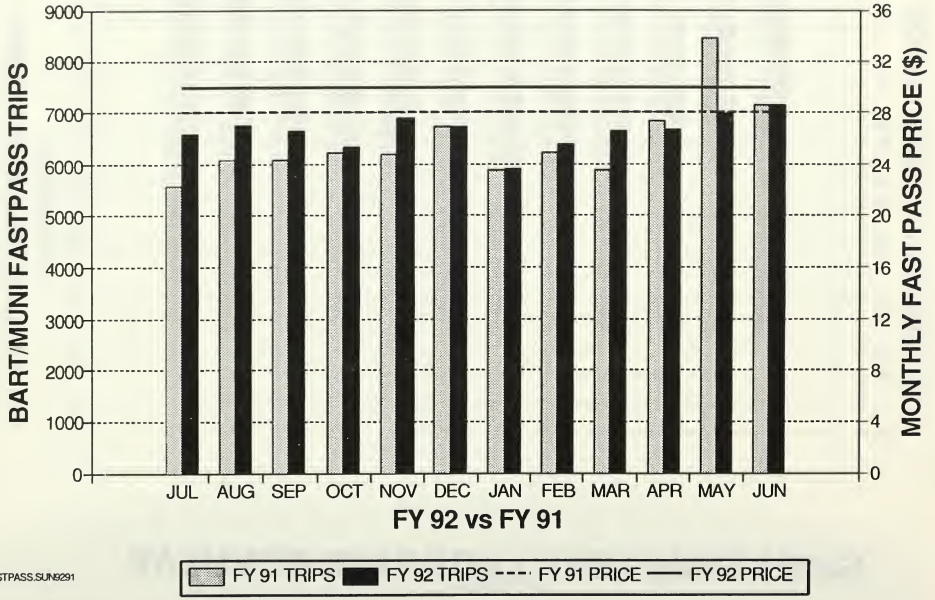
AVERAGE SATURDAY FAST PASS TRIPS



FASTPASS.SAT9291

Figure 2-15

AVERAGE SUNDAY FASTPASS TRIPS



FASTPASS.SUN9291

These are trains that are less than ten-cars long and can be lengthened as demand warrants.

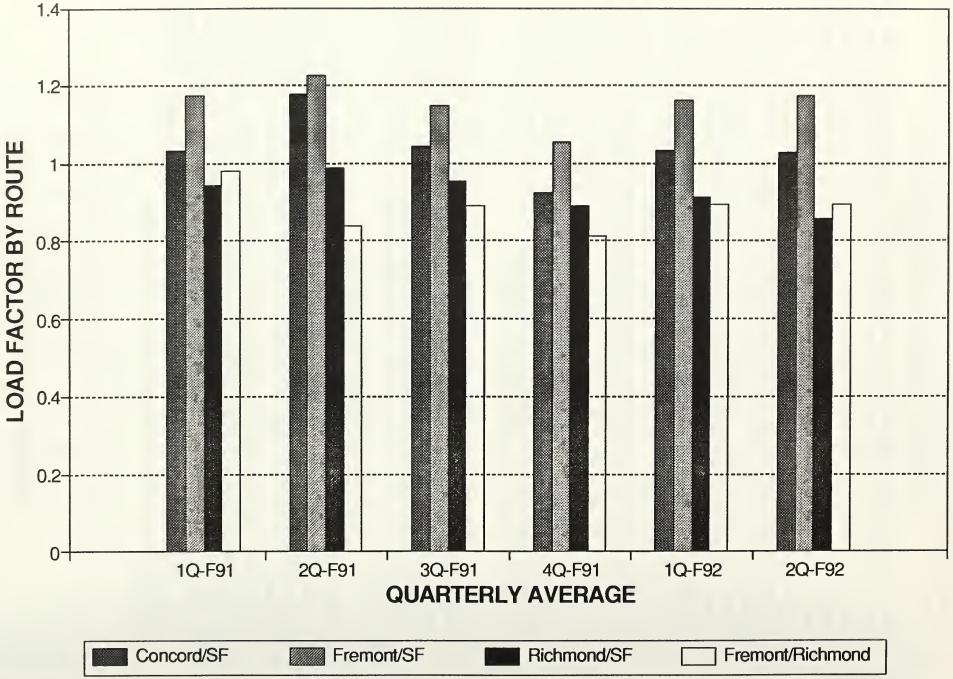
The recent acquisition of 150 C-cars has enabled BART to add capacity under current headway constraints by lengthening trains up to the ten car limit. How the new C-cars have been used to provide added capacity is best revealed by looking at the peak period screenline crossings for all cars in operation. [The maximum screenline crossings are West Oakland-Embarcadero stations for the three transbay routes and Lake Merritt-Fruitvale stations for the Richmond-Fremont route.] Three years ago with a fleet of 439 A- and B-cars, the number of vehicles scheduled to pass through the maximum screenlines during the afternoon peak period was 353 (313 cars on transbay routes and 40 cars on the Richmond-Fremont route). Currently, with 150 more cars, BART is able to provide 397 cars (346 transbay plus 51 Richmond-Fremont). These 44 additional cars represent a 12.5% increase in capacity, and are equivalent to inserting five new trains in BART's schedule. Because all peak hour trains have been near or at the ten-car limit for over a decade, most of the new C-car capacity has been added to trains which pass through the maximum screenlines during the *balance of the peak period*, or 45 minutes just before and after the peak one hour. Spreading of peak demand, a phenomenon wherein people adjust their departure times from home and work to take advantage of better travel conditions, has resulted in greater growth in demand for the balance of the peak period relative to the peak hour. BART has responded by adding and adjusting capacity during these travel times to accommodate this higher demand at the policy 1.15 load factor.

Figure 2-16 (Morning Peak Period Load Factors) and Figure 2-17 (Afternoon Peak Period Load Factors) summarize on a quarterly basis load factors by route for all morning and afternoon peak period trains in operation. As seen, peak period load factors are fairly consistent on a seasonal basis but vary by route as well as by time of day (i.e., morning versus afternoon commute periods). Load factors during the morning peak period tend to be somewhat lower than those in the afternoon.

These averages are for all trains during the entire peak period. [This interval of time corresponds to a complete train cycle, or the time it takes a train to travel from a yard and make one full loop on its designated route--approximately 2½ hours.] Load factors during the peak one hour are considerably higher as shown in Figure 2-18 (Morning Peak Hour Load Factors) and Figure 2-19 (Afternoon Peak Hour Load Factors). Detailed demand and capacity data for the morning and afternoon peak periods are presented in Figure 2-20 (Morning Peak Period Load Factors For All Trains, October-December 1991) and Figure 2-21 (Afternoon Peak Period Load Factors For All Trains, October-December 1991). Note that the reported load factors are based on capacity actually provided. For comparison purposes, scheduled capacity is also shown.

Figure 2-16

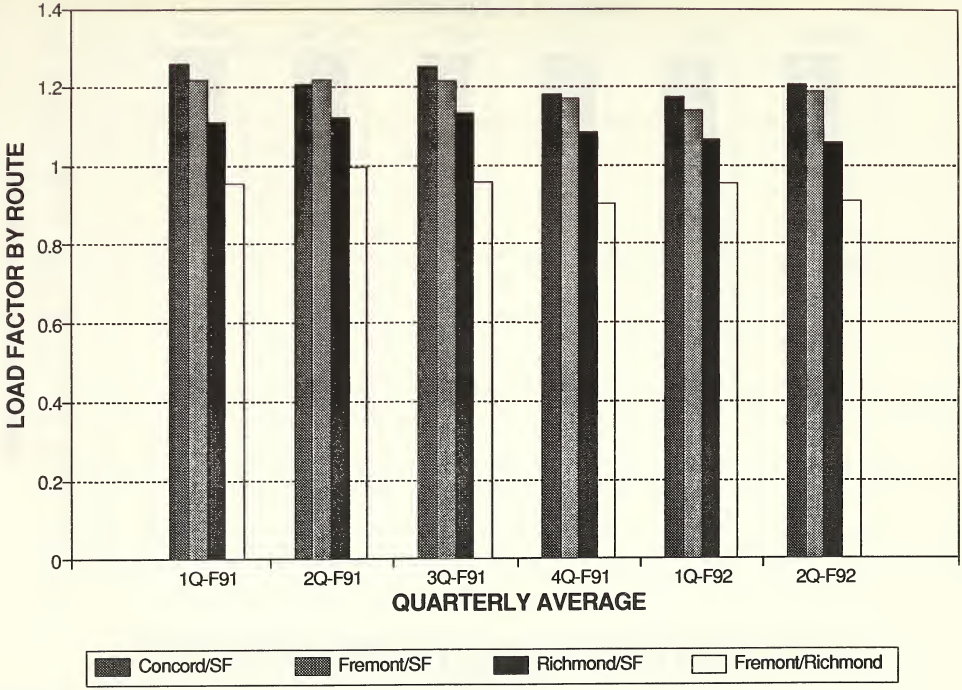
MORNING PEAK PERIOD LOAD FACTORS



TRPCAP AMPKRPLF

Figure 2-17

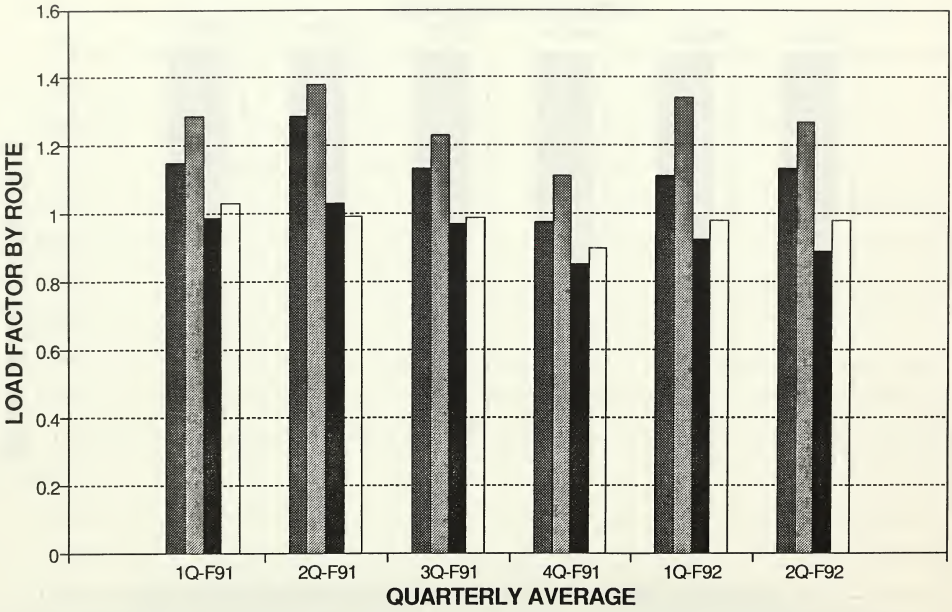
AFTERNOON PEAK PERIOD LOAD FACTORS



TRIPCAP.PMPKPDLF

Figure 2-18

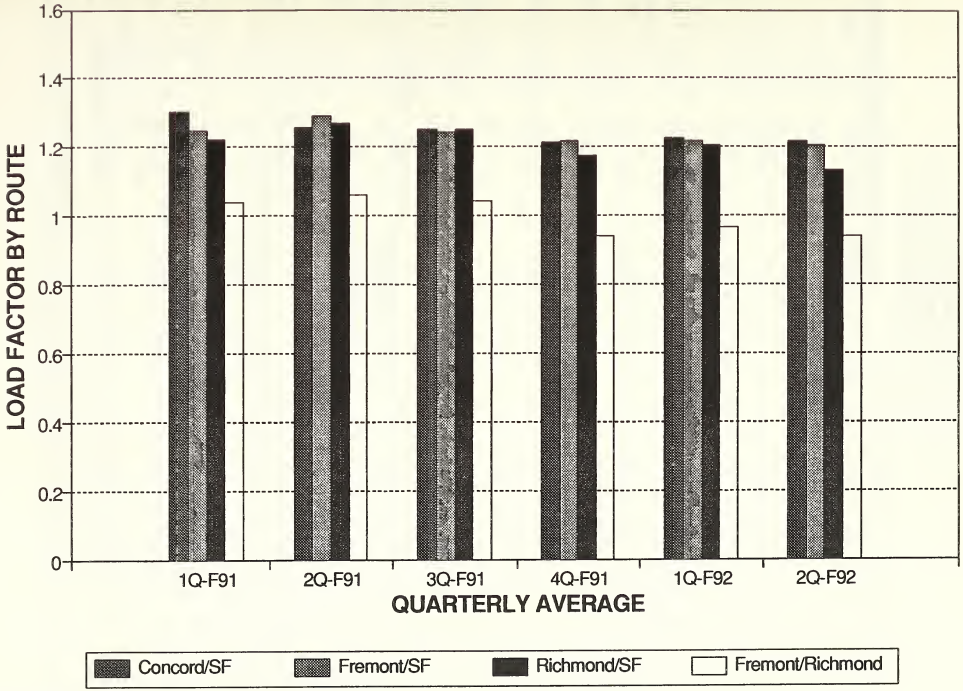
MORNING PEAK HOUR LOAD FACTORS



TRIPCAP.AMPKHRLF

Figure 2-19

AFTERNOON PEAK HOUR LOAD FACTORS



TRIPCAP.PMPKHRLF

Figure 2-20

MORNING PEAK PERIOD
LOAD FACTORS FOR ALL TRAINS *
OCTOBER - DECEMBER 1991

TRANSBAY FROM WEST OAKLAND

PERIOD/ROUTE / TIME INTERVAL		TRAINS	CARS	SEATS	PASS'GRS	LOAD FACTOR
PEAK HOUR:						
C/DC	S**	8.0	80.0	5,760		
(0708-0807)	A**	8.0	79.6	5,733	6,499	1.13
	%**	100.0%	99.5%	99.5%		
F/DC	S	5.0	50.0	3,600		
(0708-0807)	A	5.0	50.0	3,600	4,569	1.27
	%	100.0%	100.0%	100.0%		
R/DC	S	4.0	40.0	2,880		
(0708-0807)	A	3.9	38.8	2,790	2,479	0.89
	%	97.5%	96.9%	96.9%		
TOTAL T'BAY	S	17.0	170.0	12,240		
(0708-0807)	A	16.9	168.4	12,123	13,547	1.12
	%	99.4%	99.0%	99.0%		
BALANCE OF PEAK TRAIN CYCLE						
C/DC	S	10.0	96.0	6,912		
(0632-0707)	A	10.0	95.4	6,867	8,461	0.94
(0808-0859)	%	100.0%	99.3%	99.3%		
F/DC	S	8.0	58.0	4,176		
(0632-0707)	A	8.0	57.8	4,158	4,532	1.09
(0808-0859)	%	100.0%	99.6%	99.6%		
R/DC	S	6.0	54.0	3,888		
(0632-0707)	A	6.1	54.6	3,933	3,288	0.84
(0808-0859)	%	101.7%	101.2%	101.2%		
TOTAL T'BAY	S	22.0	208.0	14,976		
(0632-0707)	A	22.1	207.8	14,958	14,281	0.95
(0808-0859)	%	100.5%	99.9%	99.9%		
TOTAL PEAK PERIOD TRAIN CYCLE						
C/DC	S	18.0	176.0	12,672		
(0632-0859)	A	18.0	175.0	12,600	12,960	1.03
	%	100.0%	99.4%	99.4%		
F/DC	S	11.0	108.0	7,776		
(0632-0859)	A	11.0	107.8	7,758	9,101	1.17
	%	100.0%	99.8%	99.8%		
R/DC	S	10.0	94.0	6,768		
(0632-0859)	A	10.0	93.4	8,723	5,767	0.86
	%	100.0%	99.3%	99.3%		
TOTAL T'BAY	S	39.0	378.0	27,216		
(0632-0859)	A	39.0	376.1	27,081	27,828	1.03
	%	100.0%	99.5%	99.5%		

TOWARDS DOWNTOWN SAN FRANCISCO FROM 16TH STREET

PERIOD/ROUTE / TIME INTERVAL		TRAINS	CARS	SEATS	PASS'GRS	LOAD FACTOR
PEAK HOUR:						
ALL ROUTES	S	13.0	122.0	8,784		
(0719-0818)	A	12.6	118.5	8,532	6,654	0.78
	%	96.9%	97.1%	97.1%		
BALANCE OF PEAK TRAIN CYCLE						
ALL ROUTES	S	17.0	135.9	9,785		
(0634-0718)	A	17.1	158.1	11,385	6,820	0.58
(0819-0901)	%	100.8%	116.4%	116.4%		
TOTAL PEAK PERIOD TRAIN CYCLE						
ALL ROUTES	S	30.0	257.9	18,569		
(0634-0901)	A	29.7	276.6	19,917	13,274	0.67
	%	99.0%	107.3%	107.3%		

SOUTH AND WESTBOUND FROM ASHBY/ROCKRIDGE

PERIOD/ROUTE / TIME INTERVAL		TRAINS	CARS	SEATS	PASS'GRS	LOAD FACTOR
PEAK HOUR:						
C/DC	S	8.0	80.0	5,760		
(0654-0753)	A	8.0	79.6	5,733	6,441	1.12
	%	100.0%	99.5%	99.5%		
R/DC	S	4.0	40.0	2,880		
(0653-0752)	A	3.9	38.8	2,790	2,435	0.87
	%	97.5%	96.9%	96.9%		
F/R	S	4.0	15.0	1,080		
(0721-0820)	A	4.0	15.4	1,107	808	0.73
	%	100.0%	102.5%	102.5%		
BALANCE OF PEAK TRAIN CYCLE						
C/DC	S	10.0	96.0	6,912		
(0619-0653)	A	10.0	95.4	6,867	6,408	0.93
(0754-0846)	%	100.0%	99.3%	99.3%		
R/DC	S	6.0	54.0	3,888		
(0618-0652)	A	6.1	54.5	3,924	2,961	0.75
(0753-0846)	%	101.7%	100.9%	100.9%		
F/R	S	6.0	24.0	1,728		
(0640-0720)	A	5.9	23.8	1,710	898	0.53
(0821-0907)	%	98.3%	99.0%	99.0%		
TOTAL PEAK PERIOD TRAIN CYCLE						
C/DC	S	18.0	176.0	12,672		
(0619-0846)	A	18.0	175.0	12,600	12,849	1.02
	%	100.0%	99.4%	99.4%		
R/DC						
(0618-0846)	S	10.0	94.0	6,768		
	A	10.0	93.3	6,714	5,396	0.80
	%	100.0%	99.2%	99.2%		
F/R						
(0640-0907)	S	10.0	39.0	2,808		
	A	9.9	39.1	2,817	1,706	0.61
	%	99.0%	100.3%	100.3%		

NORTHBOUND FROM FRUITVALE

PERIOD/ROUTE / TIME INTERVAL		TRAINS	CARS	SEATS	PASS'GRS	LOAD FACTOR
PEAK HOUR:						
F/DC	S	5.0	50.0	3,600		
(0657-0756)	A	5.1	51.3	3,690	4,383	1.19
	%	102.0%	102.5%	102.5%		
F/R	S	5.0	29.0	2,088		
(0719-0818)	A	4.9	28.3	2,034	1,989	0.98
	%	98.0%	97.4%	97.4%		
BALANCE OF PEAK TRAIN CYCLE						
F/DC	S	6.0	58.0	4,176		
(0622-0656)	A	5.9	56.5	4,068	4,125	1.01
(0757-0849)	%	98.3%	97.4%	97.4%		
F/R	S	5.0	21.0	1,512		
(0635-0718)	A	5.0	21.0	1,512	1,181	0.78
(0819-0904)	%	100.0%	100.0%	100.0%		
TOTAL PEAK PERIOD TRAIN CYCLE						
F/DC	S	11.0	108.0	7,776		
(0622-0849)	A	11.0	107.8	7,758	8,508	1.10
	%	100.0%	99.8%	99.8%		
F/R	S	10.0	50.0	3,600		
(0635-0904)	A	9.9	49.3	3,546	3,170	0.89
	%	99.0%	98.5%	98.5%		

NOTES:

* Based on representative weekday data for ridership and train operations (for all peak period trains at their maximum load points).

** Data in rows designated by "S" are scheduled, "A" are actual, and "%" is the percent of scheduled service delivered.

Figure 2-21

AFTERNOON PEAK PERIOD
LOAD FACTORS FOR ALL TRAINS *
OCTOBER - DECEMBER 1991

TRANSBAY FROM EMBARCADERO

PERIOD/ROUTE / TIME INTERVAL		TRAINS	CARS	SEATS	PASS'GRS	LOAD FACTOR
PEAK HOUR:						
C/DC	S**	7.0	70.0	5,040		
(1630-1729)	A**	8.9	68.8	4,950	8,043	1.22
	%**	98.8%	98.2%	98.2%		
F/DC	S	6.0	60.0	4,320		
(1630-1729)	A	5.8	57.4	4,131	4,968	1.20
	%	96.7%	95.6%	95.6%		
R/DC	S	4.0	38.0	2,736		
(1630-1729)	A	4.0	38.1	2,745	3,109	1.13
	%	100.0%	100.3%	100.3%		
TOTAL TBAY	S	17.0	168.0	12,096		
(1630-1729)	A	16.7	164.3	11,826	14,120	1.19
	%	98.2%	97.8%	97.8%		
BALANCE OF PEAK TRAIN CYCLE						
C/DC	S	8.0	80.0	5,760		
(1545-1629)	A	8.0	79.5	5,724	6,831	1.19
(1730-1812)	%	100.0%	99.4%	99.4%		
F/DC	S	5.0	46.0	3,312		
(1545-1829)	A	4.9	45.5	3,276	3,844	1.17
(1730-1812)	%	98.0%	98.9%	98.9%		
R/DC	S	8.0	52.0	3,744		
(1545-1829)	A	8.0	53.0	3,818	3,848	1.01
(1730-1812)	%	100.0%	101.9%	101.9%		
TOTAL TBAY	S	19.0	178.0	12,816		
(1545-1629)	A	18.9	178.0	12,816	14,523	1.13
(1730-1812)	%	99.5%	100.0%	100.0%		
TOTAL PEAK PERIOD TRAIN CYCLE						
C/DC	S	15.0	150.0	10,800		
(1545-1812)	A	14.9	148.3	10,674	12,874	1.21
	%	99.3%	98.8%	98.8%		
F/DC	S	11.0	106.0	7,632		
(1545-1812)	A	10.7	102.9	7,407	8,812	1.19
	%	97.3%	97.1%	97.1%		
R/DC	S	10.0	90.0	6,480		
(1545-1812)	A	10.0	91.1	6,561	6,957	1.06
	%	100.0%	101.3%	101.3%		
TOTAL TBAY	S	36.0	346.0	24,912		
(1545-1812)	A	35.6	342.3	24,842	28,643	1.16
	%	98.9%	98.9%	98.9%		

TOWARDS DALY CITY FROM CIVIC CENTER

PERIOD/ROUTE / TIME INTERVAL		TRAINS	CARS	SEATS	PASS'GRS	LOAD FACTOR
PEAK HOUR:						
ALL ROUTES	S	12.0	120.0	8,640		
(1630-1729)	A	12.0	120.0	8,640	7,436	0.86
	%	100.0%	100.0%	100.0%		
BALANCE OF PEAK TRAIN CYCLE						
ALL ROUTES	S	18.0	152.0	10,944		
(1545-1629)	A	18.1	157.1	11,313	7,808	0.69
(1730-1812)	%	100.8%	103.4%	103.4%		
TOTAL PEAK PERIOD TRAIN CYCLE						
ALL ROUTES	S	30.0	272.0	19,584		
(1545-1812)	A	30.1	277.1	19,953	15,244	0.76
	%	100.3%	101.9%	101.9%		

NORTH AND EASTBOUND FROM MACARTHUR

PERIOD/ROUTE / TIME INTERVAL		TRAINS	CARS	SEATS	PASS'GRS	LOAD FACTOR
PEAK HOUR:						
C/DC	S	7.0	70.0	5,040		
(1647-1746)	A	6.9	68.8	4,950	5,829	1.18
	%	98.6%	98.2%	98.2%		
R/DC	S	4.0	38.0	2,736		
(1647-1746)	A	3.9	37.1	2,673	2,935	1.10
	%	97.5%	97.7%	97.7%		
F/R	S	5.0	19.0	1,368		
(1631-1730)	A	4.9	19.4	1,395	1,081	0.77
	%	98.0%	102.0%	102.0%		
BALANCE OF PEAK TRAIN CYCLE						
C/DC	S	8.0	80.0	5,760		
(1602-1829)	A	7.6	75.8	5,454	6,394	1.17
(1747-1829)	%	95.0%	94.7%	94.7%		
R/DC	S	6.0	52.0	3,744		
(1602-1829)	A	6.0	52.8	3,798	3,460	0.91
(1747-1829)	%	100.0%	101.4%	101.4%		
F/R	S	5.0	18.0	1,296		
(1546-1630)	A	5.1	19.1	1,377	829	0.60
(1730-1814)	%	102.0%	106.3%	106.3%		
TOTAL PEAK PERIOD TRAIN CYCLE						
C/DC	S	15.0	150.0	10,800		
(1602-1829)	A	14.5	144.5	10,404	12,223	1.17
	%	96.7%	96.3%	96.3%		
R/DC						
(1602-1829)	S	10.0	90.0	6,480		
	A	9.9	89.9	6,471	6,395	0.99
	%	99.0%	99.9%	99.9%		
F/R						
(1546-1814)	S	10.0	37.0	2,664		
	A	10.0	38.5	2,772	1,910	0.89
	%	100.0%	104.1%	104.1%		

SOUTHBOUND FROM LAKE MERRITT

PERIOD/ROUTE / TIME INTERVAL		TRAINS	CARS	SEATS	PASS'GRS	LOAD FACTOR
PEAK HOUR:						
F/DC	S	6.0	60.0	4,320		
(1643-1742)	A	5.8	57.4	4,131	4,657	1.13
	%	96.7%	95.6%	95.6%		
F/R	S	5.0	29.0	2,088		
(1633-1732)	A	4.0	22.9	1,647	1,550	0.94
	%	80.0%	78.9%	78.9%		
BALANCE OF PEAK TRAIN CYCLE						
F/DC	S	5.0	46.0	3,312		
(1558-1642)	A	5.1	47.8	3,438	3,701	1.08
(1743-1825)	%	102.0%	103.8%	103.8%		
F/R	S	5.0	22.0	1,584		
(1547-1632)	A	6.0	27.6	1,989	1,753	0.88
(1733-1818)	%	120.0%	125.8%	125.8%		
TOTAL PEAK PERIOD TRAIN CYCLE						
F/DC	S	11.0	106.0	7,632		
(1558-1825)	A	10.9	105.1	7,569	8,358	1.10
	%	99.1%	99.2%	99.2%		
F/R	S	10.0	51.0	3,672		
(1547-1816)	A	10.0	50.5	3,636	3,303	0.91
	%	100.0%	99.0%	99.0%		

NOTES:

* Based on representative weekday data for ridership and train operations (for all peak period trains at their maximum load points).

** Data in rows designated by "S" are scheduled, "A" are actual, and "%" is the percent of scheduled service delivered.

EVALUATION OF FINANCIAL PERFORMANCE

BART's $219.9 million operating budget for fiscal year 1992 is summarized in Figure 2-22 (BART FY 92 Operating Budget Performance Summary). This income and expense statement was formulated on the basis of policy choices and clearly identifiable, quantifiable management objectives. The approach underscored the importance of making tradeoffs and establishing priorities for resource use by emphasizing results and strengthening accountability. The FY 92 operating budget carried forward from the prior fiscal year some high-visibility programs (i.e., new initiatives) which have a direct and tangible benefit to BART riders. These include: station rehabilitation, A- and B-car rehabilitation, and increased station staffing. The budget reflected BART's major themes: customer service, extensions support, system rehabilitation, operating efficiencies, and employee development. Key budget parameters relative to the prior fiscal year included: additional cars and trains online (reflecting operational requirements of the Daly City turnback), 4.4% increase in annual car hours, and continuation of fares at 1986 levels (BART's last fare increase was on January 1, 1986).

An evaluation of how well BART performed relative to its FY 92 operating budget is presented below. As an overview, refer to Figure 2-22 (BART FY 92 Operating Budget Performance Summary) which summarizes BART's actual income/expense relative to budget for FY 92.

Passenger and Other Operating Revenues

Revenue from passenger fares includes both rail and BART express bus. Rail fare revenue in FY 92 was $98.49 million versus a budgeted $100.12 million (1.6% under budget). Contributing to this unfavorable performance were higher use of discounted senior/student/handicapped tickets relative to budget. The budgeted discounts for these tickets in FY 92 were $13.37 million versus an actual of $15.11, or $1.34 million unfavorable. Use of BART senior/student/handicapped tickets by non-qualifying persons has been the focus of efforts to curb their illegal use. Fare revenue from BART express bus passengers was 3.2% under budget in FY 92 ($1.04 million actual versus $1.07 million budgeted).

During FY 92, revenue from sources other than passenger fares amounted to $9.74 million, or 25.8% above a budget level of $7.74 million. The primary reason for this was non-budgeted interest earnings from the 1991 revenue bonds which were issued after the adoption of the FY 92 budget. Total interest earnings were 50.1% above budget ($6.48 million actual versus $4.31 million budgeted). The $2.16 million favorable interest earnings offset unfavorable advertising revenue ($1.10 million actual versus $1.20 million budgeted), and unfavorable revenue from fines and forfeitures ($0.34 million actual versus $0.61 million budgeted). Despite the January 1992 cancellation by Host International of its contract with BART for retail stores in stations, concessions income in FY 92 came

Figure 2-22

BART FY 92 OPERATING BUDGET PERFORMANCE SUMMARY *

	BUDGET	ACTUAL	$ VAR	% VAR
REVENUES				
GROSS PASSENGER REVENUE	$ 114,960.5	$ 114,635.2	$ (325.3)	(0.3)
DISCOUNTS AND DEDUCTIONS	(13,769.0)	(15,105.0)	(1,336.0)	(9.7)
NET PASSENGER REVENUE	**101,191.5**	**99,530.2**	**(1,661.3)**	**(1.6)**
OTHER OPERATING REVENUE	7,741.9	9,741.3	1,999.4	25.8
TOTAL NET REVENUE	**108,933.4**	**109,271.5**	**338.1**	**0.3**
LABOR EXPENSES				
HOURLY REGULAR TIME	103,144.0	97,866.2	5,277.8	5.1
HOURLY OVERTIME	5,334.0	7,063.2	(1,729.2)	(32.4)
SUBTOTAL HOURLY	**108,478.0**	**104,929.4**	**3,548.6**	**3.3**
SALARIED REGULAR TIME	55,826.8	55,350.1	476.7	0.9
SALARIED OVERTIME	1,106.4	1,590.9	(484.5)	43.8
SUBTOTAL SALARIED	**56,933.2**	**56,941.0**	**(7.8)**	**0.0**
TEMPORARY HELP (AGENCY)	295.4	930.7	(635.3)	(215.1)
GROSS LABOR	**165,706.6**	**162,801.1**	**2,905.5**	**1.8**
CAPITALIZED LABOR	(11,983.7)	(11,548.0)	(435.7)	(3.6)
OTHER LABOR CREDITS	(697.3)	(1,058.6)	361.3	51.8
NET LABOR	**153,025.6**	**150,194.5**	**2,831.1**	**1.9**
COST CENTER EXPENSES				
MATERIAL USAGE	1,482.5	1,871.9	(389.4)	(26.3)
PROFESSIONAL & TECHNICAL	7,830.5	8,188.7	(358.2)	(4.6)
TRAVEL	507.8	337.4	170.4	33.6
MISCELLANEOUS	7,848.6	7,275.9	572.7	7.3
SUBTOTAL COST CENTERS	**17,669.4**	**17,673.9**	**(4.5)**	**0.0**
DIRECT PROGRAM EXPENSE				
MATERIAL USAGE	7,456.0	9,359.6	(1,903.6)	(25.5)
RENTAL & MAINT. CONTRACTS	5,191.7	4,273.4	918.3	17.7
PROFESSIONAL & TECHNICAL	2,189.0	592.1	1,596.9	73.0
EXPRESS BUS SERVICE	6,608.0	6,396.2	211.8	3.2
SHUTTLE BUS SERVICE	595.0	167.0	428.0	71.9
BUS TRANSFER AGREEMENTS	5,553.8	5,562.1	(8.3)	(0.1)
ELECTRIC POWER	22,166.9	18,426.5	3,740.4	16.9
OTHER UTILITIES	1,053.4	1,090.8	(37.4)	(3.6)
SUBTOTAL PROGRAMS	**50,813.8**	**45,867.7**	**4,946.1**	**9.7**
TOTAL NON LABOR	**68,483.2**	**63,541.6**	**4,941.6**	**7.2**
TOTAL OPERATING EXPENSES	**221,508.8**	**213,736.1**	**7,772.7**	**3.5**
OPERATING SURPLUS/(DEFICIT)	(112,575.4)	(104,464.6)	8,110.8	7.2
FINANCIAL ASSISTANCE				
SALES TAX REVENUE	110,528.3	105,492.7	(5,035.6)	(4.6)
PROPERTY TAX REVENUE	10,308.5	11,145.6	837.1	8.1
OTHER FINANCIAL ASSISTANCE	2,049.8	2,087.0	37.2	1.8
DEBT SERVICE ALLOCATIONS	(10,191.2)	(13,236.1)	(3,044.9)	(29.9)
CAPITAL ALLOCATIONS	(120.0)	(1,024.9)	(904.9)	(754.1)
TOTAL FINANCIAL ASSISTANCE	**112,575.4**	**104,464.3**	**(8,111.1)**	**(7.2)**
NET OPERATING RESULT	**$ 0.0**	**$ (0.3)**	**$ (0.3)**	**100.0%**
FAREBOX RATIO	45.68%	46.57%		
OPERATING RATIO	49.18%	51.12%		
PASSENGER MILES	918,394.0	911,843.0		
RAILCOST PER PASSENGER MILE	22.7¢	22.1¢		

* UNFAVORABLE VARIANCES IN BRACKETS

within 5.2% of achieving budget ($1.10 million actual versus $1.16 budgeted). Remaining non-passenger revenue line items were favorable relative to budget. These include: fiber optics revenue, rent on buildings and other property, and parking revenue (Lake Merritt Station only).

Labor and Non-Labor Expense

Net labor expense during FY 92 was $153.02 million versus $150.19 million budgeted. BART's total staffing at the end of June 1992 was 2,699 authorized positions (operating and capitalized, full- and part-time). Of these positions, 47 were vacant at the end of the fiscal year. Figure 2-23 (BART Position Control Status Report, Month Ending June 1992) summarizes the status of BART's workforce relative to authorized positions. While bottom-line labor expense was favorable, over-time expense was 34.4% above budget ($8.65 million versus $6.44 million budgeted). This is due to vacancies which, for the most part, averaged 3% during the fiscal year.

Non-labor expense for FY 92 was 6.4% below budget. A key budget line items contributing to this favorable performance is electric power which was 16.9% under budget ($18.43 million actual versus $22.17 million budgeted).

Financial Assistance and Capital Allocations (from operating sources)

BART's budgeted sales tax revenue for FY 92 reflects assumptions made in the Spring of 1991 regarding the extent and duration of the recession. Time has proven the budget forecasts to be optimistic relative to the events which actually took place. Loss of jobs, a decline in per capita income, and other unfavorable trends for key economic indicators reflect the pervasiveness of *belt tightening* at all levels. Reduced spending translated into lower sales tax revenue, BART included. During FY 92, BART received $5.04 million **less** in sales tax revenue than forecast ($105.49 million actual versus $110.53 million budgeted). Compared to this unfavorable level, property tax receipts came in 8.1% above budget ($11.15 million actual versus $10.31 budgeted). BART also received a $2.07 million STA/TDA allocation from MTC during the last quarter of FY 92.

Allocations from BART's operating budget for servicing long-term debt were 29.9% unfavorable to budget reflecting the repayment schedule for the 1991 revenue bonds which were issued after adoption of the FY 92 budget. [Repayment of the 1991 revenue bonds began in September 1991.] Debt service allocation in FY 92 amounted to $13.24 million versus a budgeted level of $10.12 million. BART also allocated $0.45 million to capital projects from operating sources, versus a budgeted capital allocation expense of $0.12 million.

Net of debt service and other capital allocations, total financial assistance to BART amounted to $105.04 million versus $112.58 million budgeted.

Figure 2-23

POSITION CONTROL STATUS REPORT AS OF JUNE 1992

AUTHORIZED POSITIONS (2,699)	REP	NON-REP	TOTAL
BUDGETED FULL TIME	2,292	340	2,632
BUDGETED PART TIME	41	0	41
TRAINEE/APPRENTICE	7	0	7
GM AUTHORITY (CAPITAL)	9	10	19
CURRENTLY FILLED (2,652)			
FULL TIME	2,277	336	2,613
OPERATING	2,207	207	2,414
CAPITAL	70	129	199
PART TIME	39	0	39
OPERATING	39	0	39
CAPITAL	0	0	0
CURRENTLY VACANT (47)			
FULL TIME	39	7	46
OPERATING	33	7	40
CAPITAL	6	0	6
PART TIME	1	0	1
OPERATING	1	0	1
CAPITAL	0	0	0
TRAINEE/APPRENTICE	0	0	0

Net Operating Result and Financial Indicators

Above budget revenues (+ $0.34 million) and below budget expense (- $7.20 million) offset unfavorable net financial assistance (- $7.54 million). This helped BART to achieve a balanced budget for FY 92.

As a result of this favorable financial statement, budgeted levels for all of BART's key financial indicators were exceeded in FY 92. This includes the rail farebox ratio (48.7% actual versus 48.0% budgeted), the system operating ratio (51.0% actual versus 49.2% budgeted), and the rail cost per passenger mile (22.2¢ actual versus 22.7¢ budgeted). Figure 2-24 (Rail Farebox Ratio), Figure 2-25 (System Operating Ratio), and Figure 2-26 (Rail Cost Per Passenger Mile) present BART's record for achieving budgeted levels for these three key financial indicators.

Of note is the progress made with respect to improving the financial performance for BART express bus operations. Four years ago, the FY 88 farebox ratio for this service stood at 8.5%. Today, after streamlining of routes, better inter-modal coordination, and privatization of the express bus contract (at a lower cost than previously with AC Transit), the farebox ratio has nearly doubled to 16.2%.

EVALUATION OF KEY CAPITAL PROGRAM ELEMENTS

BART's Capital Improvement Program (CIP) document is published annually and contains financial and implementation status information regarding proposed future District capital projects. Without duplicating the information presented in the CIP, the purpose of this section is to highlight the key projects needed to expand BART service. This, in effect, will set the stage for Chapter 3 which presents BART's planned service improvements over the next ten years.

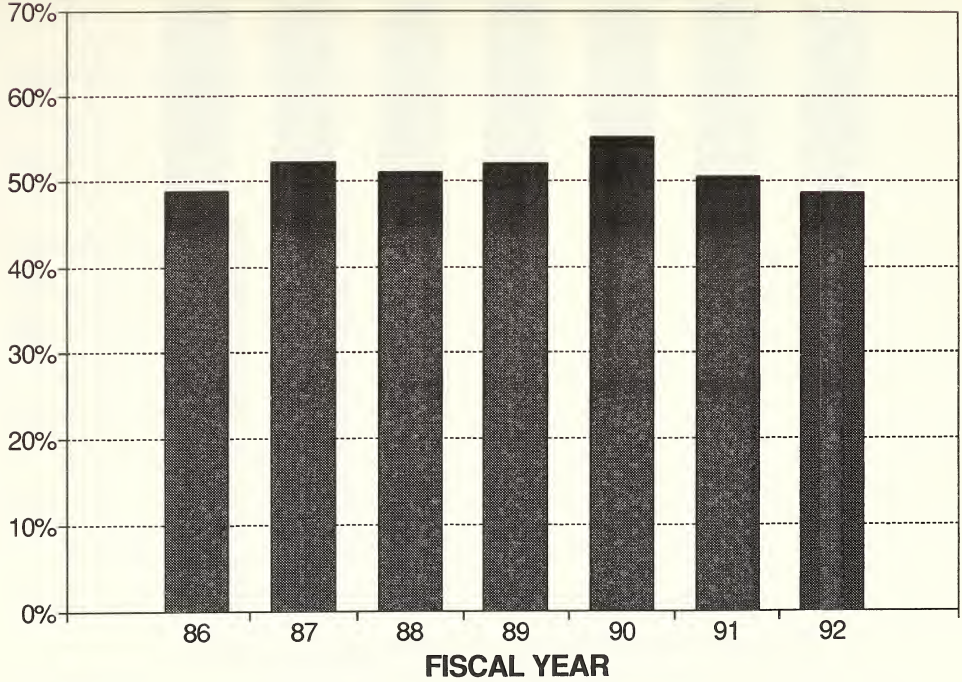
BART's efforts to increase system capacity and for bringing extensions online are based on plans which have been developed and updated for more than a decade, and are well documented. The projects required for BART to expand service fall into three basic groups. These address: car requirements, headway reduction, and expansion of online trains including extensions. Projects within each of these groups are summarized in Figure 2-27 (Key Capital Program Projects Required For Expanded Service) and are discussed below.

Current Fleet And Programmed New Car Procurement

BART's current fleet of revenue vehicles consists of 589 cars: 136 A-cars (with cab controls), 303 B-cars (without cab controls), and 150 C-cars (with cab controls). Based

Figure 2-24

BART RAIL FAREBOX RATIO



QPR.DATAHIST.RAILBOX

Figure 2-25

BART SYSTEM OPERATING RATIO

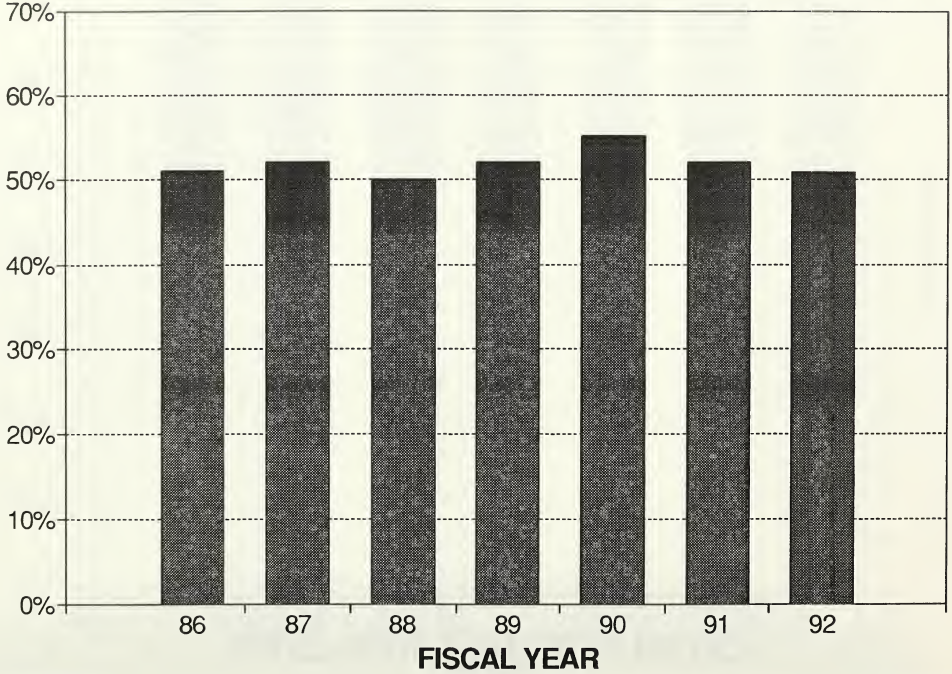


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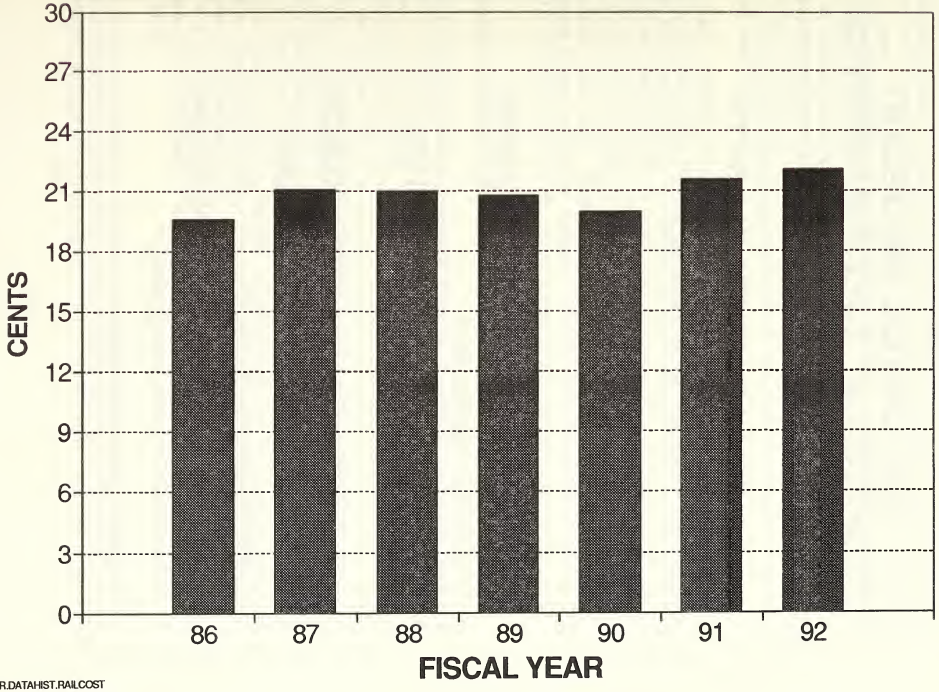
Figure 2-26

BART RAIL COST PER PASSENGER MILE



QPR.DATAHIST.RAILCOST

Figure 2-27

KEY CAPITAL PROJECTS IN SUPPORT OF EXPANDED SERVICE

VEHICLE RELATED PROJECTS

- Current contract for 80 new cars
- Two options for 170 more cars
- Car rehabilitation & A/B conversions

HEADWAY RELATED PROJECTS

- WTC/SPM modifications
- Advanced automatic train control system

EXTENSION RELATED PROJECTS

- Next generation central control system
- Systemwide radio network
- Train destination identification enhancement
- A-line train control resignaling
- Traction power increase

on current service requirements, which include *faster* service as of June 1992 and achievement of the 1.15 peak period load factor objective, BART needs a total of 526 cars to provide weekday service. Of these cars, 398 are used to form revenue-service online trains, 55 cars are held as ready spares, and 73 cars are in preventative maintenance (in accordance with BART's standards of 10% of non-cab and 15% of cab-control cars held in preventative maintenance). In addition to these 526 cars, BART has 40 A-cars which cannot be used currently, since A-car requirements are a function of the number of online trains. [A maximum of two A-cars can be used per train. For planning purposes, an average of 1.75 A-cars per train has been assumed in order to maximize use of C-cars for improved operational flexibility]. The remaining 23 cars in BART's fleet are not needed at this time but will be pressed into service as demand dictates.

The need for additional cars is based on future ridership growth as is discussed in Chapter 3. This includes the current new car contract with Morrison-Knudsen, signed in March 1992, which calls for the delivery of 80 vehicles between March and December 1995 at the rate of about 25 cars each calendar quarter. The first option for 70 additional cars (20 of which are C-cars with cab controls and 50 B-cars without cab controls) may be exercised such that there is no or little interruption of the car delivery schedule from the original 80-car order. A second option may be exercised for 100 more cars, all of which are B-cars, without cab controls. Should both of these options be exercised, BART's fleet would grow by 250 cars to a total of 839 vehicles by September 1997.

Programmed Projects Needed To Reduce Headways

Under the District's Capacity Expansion Program, key projects have been implemented since the late 1970s which have enabled BART to reduce headways and increase the number of online cars and trains. These projects are well documented in prior year SRTP/CIPs and include the addition of the KE track, Daly City turnback and yard, and C-cars. As of June 1992, the system can support an average minimum service schedule headway of 180 seconds, or 20 trains per hour in one direction. Higher service levels (i.e., higher frequency service at reduced train headways) are not possible until the system throughput enhancement plan (STEP) is complete. Once the projects under this plan in place, now scheduled for December 1994, BART will be able to operate at a minimum service schedule headway of 135 seconds, or 24 trains per hour in one direction. One additional project, the brake rate algorithm modifications, is scheduled for completion by October 1992. This project is not critical for achieving a 135 second headway but is being implemented to smooth out the speed profiles to provide for improved train performance (including a more comfortable ride) under closer headway operations.

Implementation of service at headways below 135 seconds is under investigation as part of the advanced train control project, which would allow BART to operate at a minimum scheduled headway of 120 seconds.

Implementation of service at headways below 135 seconds is under investigation as part of the advanced train control project, which would allow BART to operate at a minimum scheduled headway of 120 seconds.

Programmed Projects Needed To Expand Online Trains And Operate Extensions

Part of BART's Capacity Expansion Program is the implementation of projects to allow the system to operate with substantially more online trains than is currently possible. This addresses higher density train operations on the existing 71-mile system as well as accommodating additional trains associated with extensions.

The newly implemented central control system (CCS) was a major milestone toward this objective. Three key projects will enable BART to expand service above the current maximum of about 50 online trains. These projects are the systemwide radio network (scheduled for completion by July 1995), the train destination identification enhancement (July 1995 completion), and the next generation central control system (NXTGEN, September 1997 completion).

The implementation of these projects supports the planned start of service for BART's phase one extensions. The status for each of these extensions is summarized in Figure 2-28, (Phase I BART Extensions, Programmed Start Of Service). As shown, three of the phase I extensions are scheduled to open for service within a four month period starting in July 1995: North Concord (July), Colma (September), and East Dublin (October). Extensions to West Pittsburg and to Warm Springs are currently scheduled to open in March 1997 and March 1998, respectively. Finally, the remaining three-station extension south of Colma to San Francisco Airport is slated to open by June 2002.

Car requirements for these extensions have been considered in the new car procurement schedule, which includes two options beyond the current commitment for 80 new cars (see *Current Fleet and New Car Procurement*, above). Considerations for adding trains on the system, including those for extensions, are also being addressed as discussed, above. In addition to the projects already identified, are two other projects which will support direct *Dublin/San Francisco* service (i.e., a new fifth route). This requires that the portion of the system between Lake Merritt and Bay Fair stations be upgraded, which is the purpose of the A-line train control resignaling and traction power increase projects. These programmed projects are both scheduled for completion by July 1995, three months in advance of the planned start of service to East Dublin station.

Figure 2-28

PHASE I BART EXTENSIONS
PROGRAMMED START OF SERVICE

- JUL 95 - North Concord
- SEP 95 - Colma
- OCT 95 - East Dublin
- MAR 97 - West Pittsburg
- MAR 98 - Warm Springs
- JUN 02 - San Francisco Airport

CHAPTER 3

PLANNED SERVICE AND PROGRAMS

RIDERSHIP FORECAST

BART's service plan and capital program are based on *expectations* of future ridership. Forecasts used in this SRTP are consistent with those presented in last year's Plan. Ridership projections are based on a forecasting model developed by Manuel Padron & Associates (MPA) as part of BART's SRTP and Extensions Service Planning (ESP) efforts. MPA's base assumptions are consistent with those used by MTC and ABAG for population and employment growth and for regional travel. Population and employment projections used in forecasting BART ridership are summarized in Figure 3-1 (Regional Population Forecasts) and Figure 3-2 (Regional Employment Forecasts).

The MPA model forecast identified ridership figures for each fiscal year. These fiscal year ridership figures serve as the basis for quarterly forecasts which were developed and are more closely linked to the opening of each extension and other service improvements. This refinement is essential for analyzing service improvements versus demand. [Refer to Appendix A: BART Service Expansion and Key System Components, Headway Reduction and Extensions which presents the details of the analysis for formulating the service plan with regard to demand, car requirements, load factors, headway reduction, and car storage requirements.] One important variance relative to the MPA forecast is noted. The implementation phasing of the San Francisco Airport extension is such that it is to be in service for only one month in FY 2002. As such, *the MPA average weekday ridership forecast of 378,000 trips for FY 2002 is assumed to be an end point in the fiscal year and not the average for the entire year.* The average weekday ridership for FY 2002 in this SRTP is projected to be 351,000 trips. This is consistent with results of an analysis performed to cross-check the incremental ridership associated with the extension to San Francisco Airport, which includes stations at South San Francisco, Tanforan, and the Airport (service to Colma Station is to start in September 1995). Results of this analysis reveal an incremental ridership on an average weekday basis of 30,000 trips and is consistent with prior forecasts.

Regional Population Growth

Assumptions for regional population include constant year-to-year growth throughout the current ten year period, and a tapering effect sometime after 2010. The 1990 population base used in the MPA forecasting model for the nine-county Bay Area is 6.0 million. By the year 2000, population in the nine counties is projected to grow to 6.8 million, or 13.2% above 1990s. In comparison, the population for the current three-county BART District is projected to grow 11.4% from a 1990 base of 2.8 million to 3.1 million in 2000. Within the BART District, the highest percentage gain in population is projected for Contra Costa county, 18.2% in the decade. In the same period, Alameda county's population is expected to increase 10.5%, while San Francisco's gain is 5.2%.

Figure 3-1

REGIONAL POPULATION FORECASTS

COUNTY	1990	1995	2000
San Francisco	723,957	735,227	761,811
Alameda	1,279,182	1,347,417	1,413,967
Contra Costa	803,732	886,382	950,029
District Subtotal	*2,806,871*	*2,969,026*	*3,125,807*
San Mateo	649,623	673,041	697,456
Santa Clara	1,497,577	1,591,355	1,683,383
Marin	230,096	237,685	246,519
Solano	340,421	406,548	462,774
Napa	110,765	118,698	125,774
Sonoma	388,222	437,939	479,356
Region Total	***6,023,575***	***6,434,292***	***6,820,069***

Figure 3-2

REGIONAL EMPLOYMENT FORECASTS

COUNTY	1990	1995	2000
San Francisco	571,809	612,177	641,430
Alameda	606,556	672,119	739,411
Contra Costa	291,649	334,233	361,790
District Subtotal	*1,470,014*	*1,618,529*	*1,742,631*
San Mateo	303,548	336,831	361,081
Santa Clara	868,486	950,707	1,025,209
Marin	99,950	114,310	123,670
Solano	119,316	141,384	161,023
Napa	46,979	52,739	58,955
Sonoma	140,049	164,563	186,208
Region Total	***3,048,342***	***3,379,063***	***3,658,777***

Regional Employment Growth

Employment projections used in the MPA model for forecasting BART ridership show a 20.0% increase in the number of jobs in the nine-county Bay Area between 1990 and 2000, from a base of 3.0 million jobs to 3.7 million. The three BART counties are expected to experience somewhat lower growth, at 18.5%, from a base of 1.4 million jobs to 1.7 million in 2000. This is primarily due to a relatively low 12.2% growth forecast for San Francisco versus 24.0% for Contra Costa county and 21.9% for Alameda county.

Other BART Ridership Influencing Factors

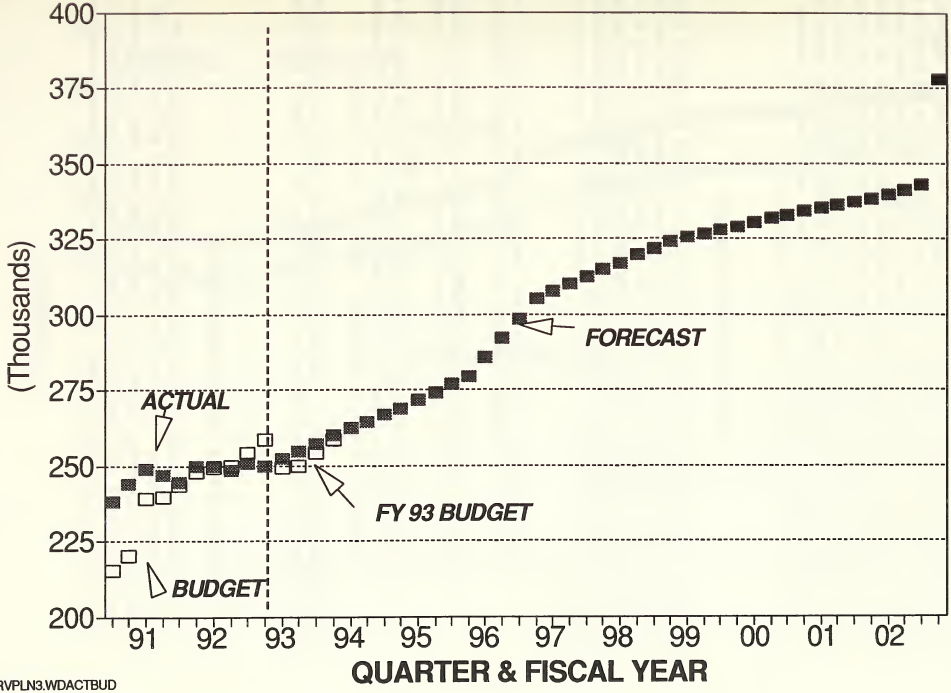
Other key assumptions used by MPA for forecasting BART ridership include consideration for BART fares, travel times (highway and BART), station access, and start of extensions service. Base ridership forecasts were developed using *current* BART fares throughout the ten year planning period. Travel times assumed faster BART run times, which took effect in June 1992, and degradation of auto travel times reflecting increased highway congestion. The implicit assumptions regarding access to BART include a continuation of the current relationship between the supply and demand for station parking. It is also assumed that transit services operated by other Bay Area agencies which interface with BART will continue at current levels *except* for BART express bus service. It is assumed that service on portions of BART express routes which coincide with BART extensions will be discontinued when rail service begins. Assumptions regarding the start of service for each of the phase I extensions includes the schedule as identified in Figure 2-28 (Phase I BART Extensions, Programmed Start of Service) in Chapter 2. For planning purposes, an *external* station is assumed for the San Francisco Airport extension which is programmed to open by June 2002. Additionally, the extension to Dublin/Pleasanton is assumed to open in October 1995 with two stations: Castro Valley and East Dublin. The West Dublin Station is assumed to be a *non-operational shell* which is assumed to open in FY 1998.

Average Weekday Ridership

Average weekday ridership for the current ten year planning timeframe is projected to increase by about 50%, from 252,000 trips as of the end of FY 92 to 378,000 trips by the end of FY 2002 when all phase I BART extensions are in service (refer to Figure 3-3, Actual and Forecast Weekday Trips). As stated in the introduction to the ridership forecast section, the assumed June 2002 opening of the San Francisco Airport extension (i.e., only one month in the entire 2002 fiscal year) results in an average weekday ridership for FY 2002 of 351,000 trips, substantially lower than the June 2002 average *with* the extension to the Airport. This sharp increase is apparent in Figure 3-3 (Actual and Forecast Weekday Trips) between the third and fourth quarters of FY 2002.

Figure 3-3

ACTUAL & FORECAST WEEKDAY TRIPS



SERVPLN3.WDACTBUD

Based on the forecast of average weekday ridership, estimates were made for maximum screenline peak period trips. [*Peak period* is defined as a two and one-half hour round-trip train run time; the time required for a train to travel from a yard to the opposite end of the line and return to the same yard.] As shown in Figure 3-4 (Actual and Forecast Maximum Screenline Peak Period Trips), the number of passengers on an average weekday passing through the maximum load points during the peak period 32,000 as of the end of FY 1992. With the Airport extension open at the end of FY 2002, this volume of peak passengers is forecast to increase 50% to 48,000. *This peak period level of ridership effectively defines the capacity BART will need to provide by the close of FY 2002 with all phase I extensions in service.*

RAIL SERVICE EXPANSION

The plan for expanding rail service is summarized in Figure 3-5 (BART Service Expansion, Headway Reduction and Extensions). Rail service expansion will take place over the next ten years such that sufficient BART capacity may be provided to meet anticipated ridership at the 1.15 policy load factor for peak operations. The phasing of capacity expansion projects and other key system improvements support the achievement of BART's load factor objective. Within this framework, BART will be providing more service by:

1. Rehabilitating the existing fleet and procuring a sufficient number of new vehicles to meet growth in demand including cars needed for extensions.

2. Completing projects to allow the minimum scheduled headway to be reduced below the current level so that higher frequency train service can be provided.

3. Completing projects to allow the system to handle more trains at any one time than is currently possible; and in tandem with this, completing extensions to serve new markets in the East Bay, South Bay, and Peninsula.

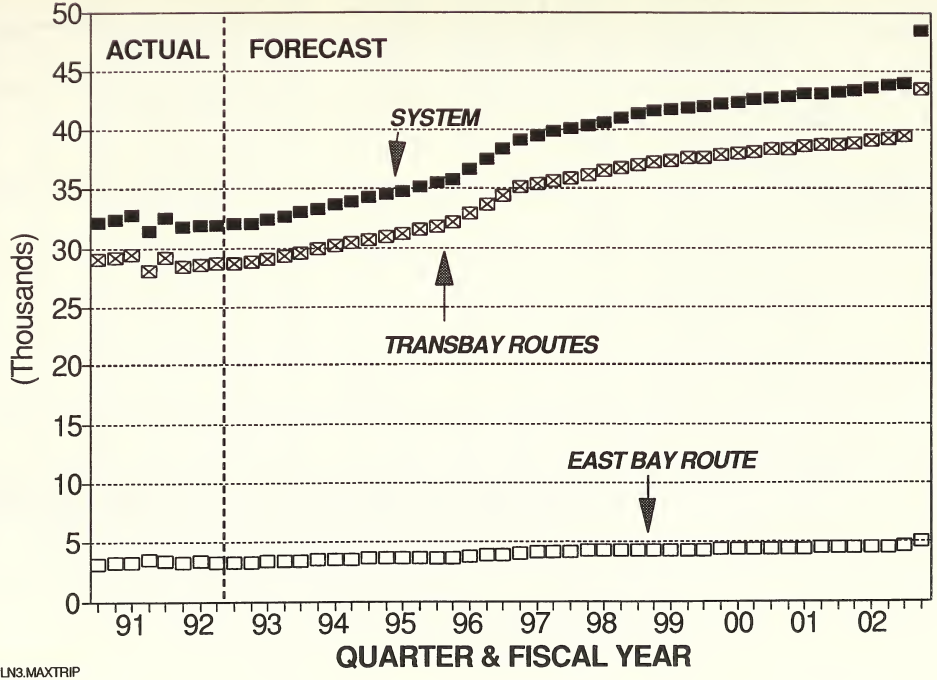
BART's service expansion plan, as presented in Figure 3-5 (BART Service Expansion, Headway Reduction and Extensions), is discussed below as it relates to each of these areas.

Fleet Expansion And Car Storage Requirements

The current contract with Morrison-Knudsen will provide 80 new vehicles which are to be delivered between March 1995 and December 1995 (refer to *Evaluation of Key Capital Program Elements, Current Fleet and Programmed New Car Procurement* section in Chapter 2). This contract and the two options BART may exercise for up to a total of 250 new vehicles is based on a previously conducted analysis of system needs.

Figure 3-4

MAXIMUM SCREENLINE PEAK PERIOD TRIPS



SERVPLN3.MAXTRIP

Figure 3-5

BART SERVICE EXPANSION
HEADWAY REDUCTION AND EXTENSIONS

MINIMUM HEADWAY Seconds			PLANNED SERVICE LEVEL	MAXIMUM PLANNED CAPACITY		FLEET ALLOCATION					UNFINISHED PROJECTS REQUIRED TO ACHIEVE SERVICE LEVELS AND OTHER KEY PROJECTS	PROJECT COMPLETION DATE
SYSTEM CAPABILITY		PLANNED	START	TRANSBAY	TRAINS	SERVICE CAR REQUIREMENTS			IN SHOPS	TOTAL		
DESIGN	SERVICE	SERVICE	DATE	TRAINS/HR	ON LINE	ONLINE	SPARES	TOTAL	& YARDS	FLEET		
120	180	180	Jun 92	17	43	398	55	453	136	589	1. PL/timetable change (faster service).	Jun 92
										589	2. Brake rate algorithm modifications.	Oct 92
										589	3. Central control display board modifications.	Dec 92
										589	4. Yard improvement project (car storage).	Jul 93
105	135	150	Dec 94	20	49	424	55	479	115	589	5. M-line STEP.	Dec 94
										594	6. Current contract, first 5 of 80 new cars arrive.	Mar 95
										594	7. NXTGEN (portions required for extensions).	Mar 95
										594	8. Train destination identification enhancement.	Jul 95
										627	9. Systemwide Radio Network.	Jul 95
										627	10. A-Line train control resignalling.	Jul 95
										627	11. A-Line traction power increase.	Jul 95
										627	12. Service to North Concord begins.	Jul 95
										615	13. Car rehabilitation begins Aug 95 (see #25).	—
		150	Sep 95	20	50	448	55	503	121	624	14. Service to Colma begins.	Sep 95
		150	Oct 95	24	57	490	55	545	87	632	15. Service to East Dublin begins.	Oct 95
										649	16. Current contract, all 80 new cars arrive.	Dec 95
		150	Jun 96	24	57	510	55	565	124	689	17. 1st option, 50 of 70 new cars arrive (130 total).	Jun 96
105	135	135	Sep 96	26	61	514	55	569	145	714	18. 1st option, all 70 new cars arrive (150 total).	Sep 96
										714	19. 2nd option, 5 of 100 new cars arrive (155 total).	Sep 96
		135	Mar 97	26	63	534	55	589	175	764	20. Service to West Pittsburg begins.	Mar 97
										809	21. 2nd option, all 100 new cars arrive (250 total).	Sep 97
										809	22. NXTGEN (all phases complete).	Sep 97
		135	Mar 98	26	67	576	55	631	178	809	23. Service to Warm Springs begins.	Mar 98
TBD	120	120	Sep 98	28	71	582	55	637	172	809	24. Advanced ATC for 120 sec headways.	Jul 98
						590	55	645	194	839	25. Car rehabilitation ends.	Sep 99
		120	Mar 02	28	71	609	55	664	175	839	26. West Dublin Station opens.	TBD
TBD	120	120	Jun 02	28	75	685	55	740	99	839	27. Service to SFO begins.	Jun 02

This car procurement is shown graphically in Figure 3-6 (New Transit Car Acquisitions) and in tabular form with key milestones identified in Figure 3-7 (Planned Fleet Expansion and Vehicle Related Projects). The status of the fleet, as service is expanded and service requirements change, is presented in Figure 3-8 (Status of Cars In Fleet). The 15% cab-control/10% non-cab control preventative maintenance standard is assumed to be constant throughout the ten year period, as is the 55 cars held as online ready spares. Cars in for rehabilitation average between 20 and 30 throughout the program, which is to begin in August 1995 and end in June 1999. Online car requirements are a function of demand. The status for all remaining vehicles in the fleet are a function the fleet size, which determines how many cars are held in inventory and not needed at any point in time. An additional factor is the number of online trains which determines A-car utilization. Current plans call for the conversion of 80 A-cars to B-cars during the first part of the car rehabilitation program. Since A-cars have restricted use as lead or trail vehicles, these conversions will provide added operational flexibility as well as allow BART to make greater use of the existing fleet. Current analysis underscores the need for 250 new vehicles to meet demand at BART's 1.15 peak period load factor objective:

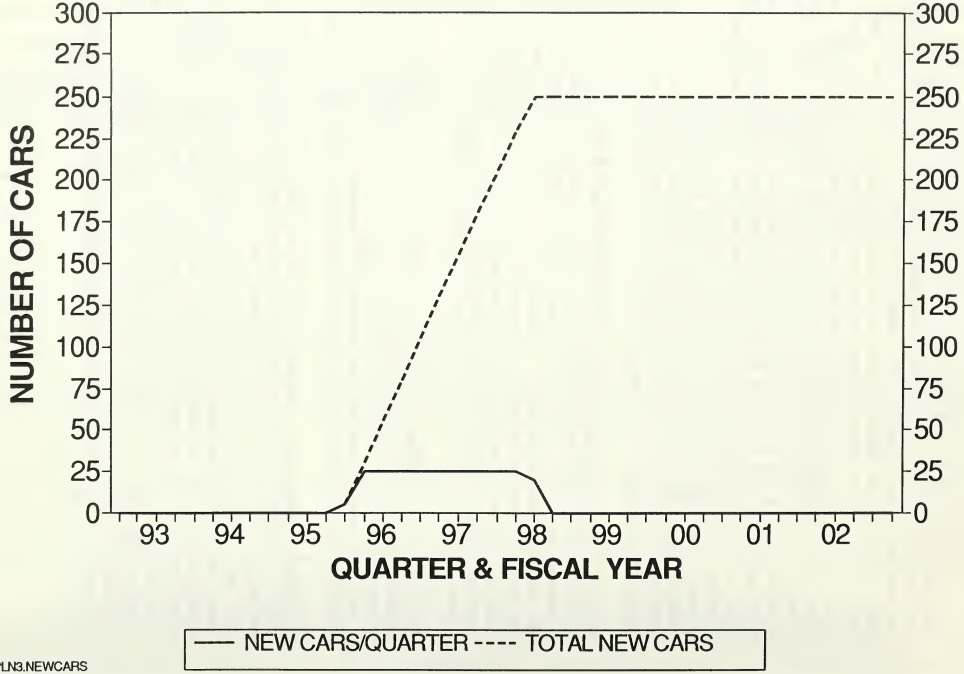
Uninterrupted Car Delivery Schedule: Should BART exercise the second option under an *uninterrupted* car delivery schedule, the District will have to maintain an inventory of vehicles substantially greater than it needs. This is apparent in Figure 3-9 (New Car Buy Versus Excess/Deficit Cars). It appears that procuring 150 new cars within the context of the current contract and first option (with the last car to be delivered by October 1996) would satisfy BART's vehicle needs through FY 1998. Additional cars would be needed to meet growth in demand after this time, and all 250 new cars will be needed when service to San Francisco Airport begins in June 2002.

1.15 Load Factor Standard: Maintaining a 1.15 peak period load factor standard is feasible through the ten year planning period as shown in Figure 3-10 (Actual and Forecast Average Peak Period Load Factors). The timing of new car deliveries beginning in March 1995 provides sufficient capacity for BART to achieve the policy load factor even with the removal of between 20 and 30 cars for rehabilitation beginning in August 1995.

Car Storage Requirements: Figure 3-11 (Car Storage Capacity Versus Needs) identifies BART's car storage capacity versus needs throughout the ten year planning period. As shown, BART's car storage needs are currently just under the available capacity with 516 cars needing overnight storage versus 521 usable storage spaces. The number of stored cars is equal to the total fleet less cars in for preventative maintenance and cars in for rehabilitation (cars in for preventative maintenance are assumed to be located inside shops and cars in for rehabilitation are to be physically removed from BART property). The number of *usable* storage spaces is equal to 80% of the total spaces in the four existing yards (651 x 0.8 = 521). This factor ensures that sufficient free space is available for necessary yard moves (i.e., train formation and car distribution). As shown in Figure 3-11 (Car Storage Capacity Versus Needs), the additional car storage spaces

Figure 3-6

NEW TRANSIT CAR ACQUISITIONS



SERVPLN3.NEWCARS

Figure 3-7

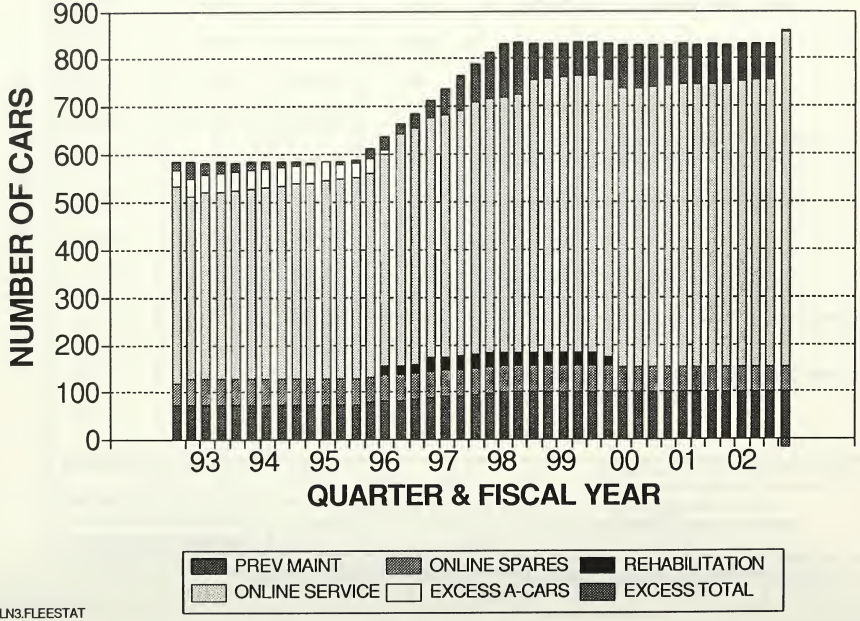
PLANNED FLEET EXPANSION AND VEHICLE RELATED PROJECTS *

PLANNED FLEET ADDITIONS Assumes 250-Car Buy Between Mar 95-Sep 97 Uninterrupted Delivery @ 25 Cars Per Quarter		DATE End of Quarter Or Other Key Milestone	TOTAL FLEET	UNFINISHED PROJECTS REQUIRED TO ACHIEVE SERVICE LEVEL Project Numbers Correspond To Those Presented In "Headway Reduction and Extensions" Chart	PROJECT COMPLETION DATE
INCREMENTAL	CUMMULATIVE				
0	0	Jun 92	589	— (Current fleet)	—
5	5	Mar 95	594	4. Yard improvement project (for car storage).	Jul 93
				6. First 5 new cars under current contract for 80 arrive.	Mar 95
25	30	Jun 95	619		
25	55	Sep 95	624	13. Car rehab starts Aug 95 (20-30 cars out through Jun 99).	—
25	80	Dec 95	649	16. Current contract, first 80 new cars arrive.	Dec 95
25	105	Mar 96	674		
25	130	Jun 96	689	17. First 50 new cars under 1st option for 70 arrive.	Jun 96
25	155	Sep 96	714	18. First option, 70 new cars arrive (150 total).	Sep 96
				19. First 5 new cars under 2nd option for 100 arrive.	Sep 96
25	180	Dec 96	739		
25	205	Mar 97	764		
25	230	Jun 97	789		
20	250	Sep 97	809	21. Second option, 100 new cars arrive (250 total).	Sep 97
0	250	Jun 99	839	25. Car rehabilitation complete.	Jun 99

* Includes cars added for extensions.

Figure 3-8

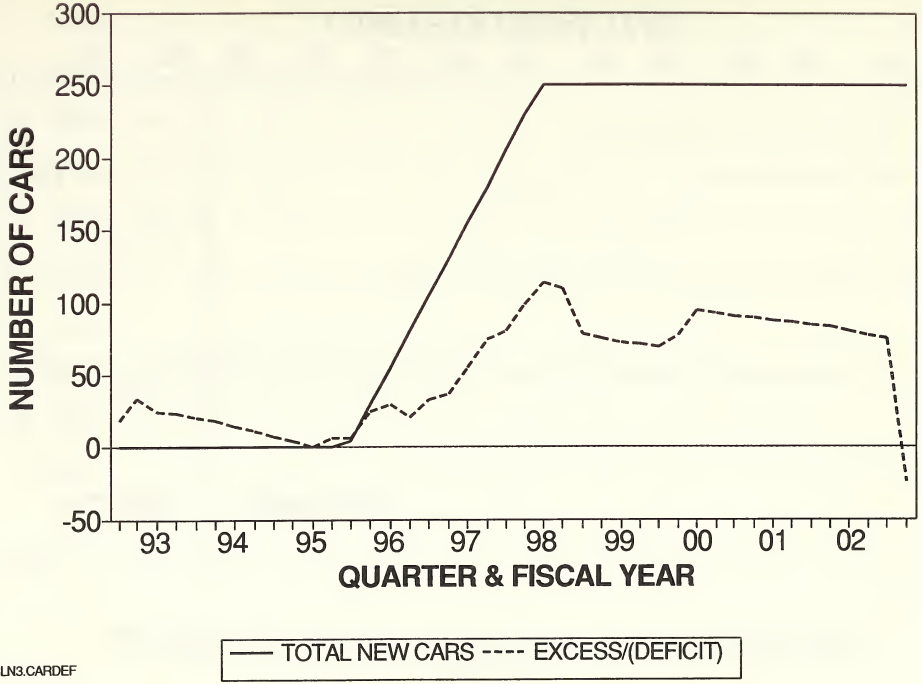
STATUS OF CARS IN FLEET



SERVPLN3.FLEESTAT

Figure 3-9

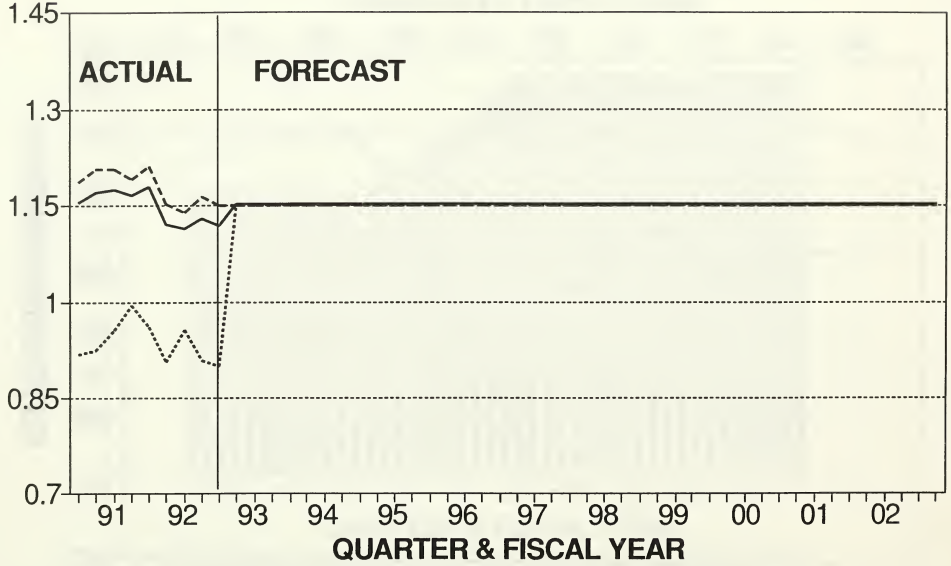
NEW CAR BUYS vs EXCESS/DEFICIT CARS



SERVPLN3.CARDEF

Figure 3-10

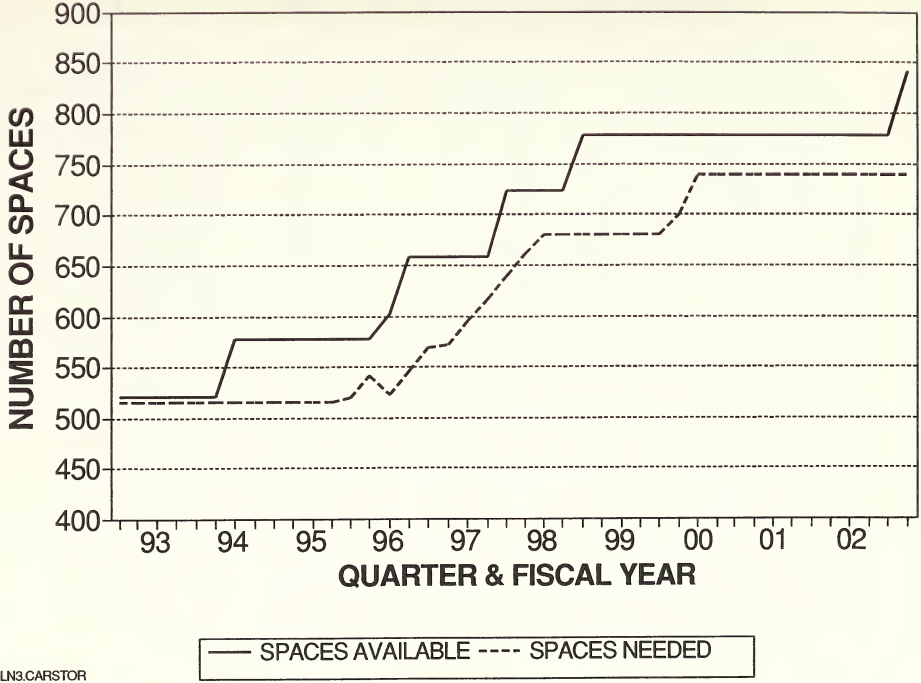
AVERAGE PEAK PERIOD LOAD FACTORS



SERVPLN3.LOADFACT

Figure 3-11

CAR STORAGE CAPACITY vs NEEDS



SERVPLN3.CARSTOR

provided by extension tail tracks--portrayed as steps on the solid line in the chart--is sufficient to accommodate the planned fleet expansion under an uninterrupted car buy.

Reduction Of Headways To Allow For Higher Capacity

Figure 3-12 (Planned Phasing of Reduced Headway Service and Required Projects) identifies the planned schedule for implementing higher frequency train service, predicated on the capability of operating at headways which are lower than today's. This phasing plan is based on the foregoing analysis of demand and implementation of key projects required for reducing headways. As shown, completion of the system throughput enhancement plan project, or STEP (formerly called wayside train control/system performance modifications, or WTC/SPM) in December 1994 will permit BART to operate at a minimum service headway of 135 seconds, down from an average of 180 seconds currently. This translates to an increase in capacity of 30%, from a maximum of 20 trains per hour in one direction to 26. Analysis of ridership indicates, however, that a lower level of service could serve the forecast peak demand. For this reason, it is planned that BART will begin to operate at a minimum scheduled headway of 150 seconds by December 1994 upon completion of STEP. It is planned that a maximum 20 transbay trains per hour will be operated initially at this headway (i.e., 50 minutes of service at 150 second headways). Up to four transbay trains per hour are to be added under this service level as demand warrants. An advantage of the start of 150 second service in December 1994 is that it allows ample time for BART to refine the higher service level schedule *in advance* of when service to Colma, North Concord, and East Dublin begins (between July and October 1995). Additionally, this phasing provides a *place holder* for the possible start-up of direct Dublin/San Francisco service, should the decision be made to add this new route.

The next service level calls for the implementation of 135 second scheduled headway service. Since no additional projects are required, the decision to start this higher service level would be at the discretion of BART given ridership growth and the need to provide more capacity. The analysis for this SRTP shows that 135 second service will be needed by September 1996 as shown in Figure 3-12 (Planned Phasing of Reduced Headway Service and Required Projects). Going to this service level, BART would be operating at a maximum 26 transbay trains per hour.

With continued growth in ridership, as the result of extensions and service improvements, current analysis shows that a 120 second minimum scheduled headway will be needed by September 1998. The key project for achieving this level of service is the advanced automatic train control (ATC) project which is currently scheduled for completion by July 1998. With this project in place, BART will be able to operate 30 transbay trains per hour in one direction. This is 76% more capacity than is provided as of June 1992. Based on the ridership forecast, a maximum of 28 transbay trains per hour provides a sufficient level of capacity to meet the 1.15 peak period load factor standard.

Figure 3-12

PLANNED PHASING OF REDUCED HEADWAY SERVICE AND IMPLEMENTATION OF REQUIRED PROJECTS

MINIMUM HEADWAY Seconds			PLANNED SERVICE LEVEL START DATE	MAXIMUM TRANSBAY CAPACITY (Trains/ Hour, Peak Direction)		UNFINISHED PROJECTS REQUIRED TO ACHIEVE SERVICE LEVEL	PROJECT COMPLETION DATE
SYSTEM CAPABILITY		PLANNED					
DESIGN	SERVICE	SERVICE		SERVICE CAPABILITY	PLANNED SERVICE	Project Numbers Correspond To Those Presented In "Headway Reduction and Extensions" Chart	
120	180	180	Jun 92	20	17	1. PL/timetable change (faster service).	Jun 92
105	135	150	Dec 94	24	20	2. Brake rate algorithm modifications. 5. M-line STEP.	Oct 92 Dec 94
		150	Oct 95	24	24		
105	135	135	Sep 96	26	26		
TBD	120	120	Sep 98	30	28	24. Advanced ATC for 120 sec headways.	Jul 98

Expansion Of Online Trains And Extensions

BART's central control system (CCS) at its Lake Merritt headquarters and wayside equipment located along the trackway and stations provide automated control and supervision of train movements. Improvements to this system were recently completed for the purpose of accommodating higher service levels and resulting higher number of trains which will needed. Three projects remain to be completed before BART can expand the number of online trains. Figure 3-13 (Planned Expansion of Online Trains and Required Projects) identifies these projects and shows the planned build-up of train service.

The central control display board modifications, which is to include the Daly City turnback and yard and future extensions, is to be installed and ready for service by December 1992, two years in advance of the planned start of 49 train service and extensions in 1995.

Efforts are underway to replace the existing supervisory control and data acquisition (DAS) systems. The next generation control system project, or NXTGEN, will accommodate expansion of train service on the existing system and allow for the addition of extension service. Portions of NXTGEN required for extensions are to be completed by mid 1995. Other portions of the project, those calling for replacement of obsolete equipment which do not relate directly to extensions, are to be completed by the latter part of 1997.

The current communication system limits operation of greater than about 50 trains on the system at any one time. The systemwide radio network project addresses this problem and is scheduled to be completed by July 1995, only a few months in advance of the start of 57 train service with the addition of extensions to Colma, North Concord, and East Dublin.

The start of service on the extension to East Dublin may result in the addition of a new transbay route. Consideration in terms of headways have been made to accommodate this fifth route, should the decision be made to implement it. At a minimum, however, is the need to increase the traction electrical power capacity and resignal the train control system between Bay Fair and Lake Merritt stations so that East Dublin bound and departing trains may use this portion of the Fremont line. This is based on a planned route between East Dublin and an East Bay station north of Bay Fair yet to be identified. Both these projects are slated for completion by July 1995, three months in advance of the start of East Dublin service.

The final key project, which will allow BART to operate with all the planned phase I extensions and other service improvements, is the train destination identification enhancement project. This will expand the number of train identifiers and possible

Figure 3-13

PLANNED EXPANSION OF ONLINE TRAINS * AND IMPLEMENTATION OF REQUIRED PROJECTS

PLANNED MAXIMUM ONLINE TRAINS	PLANNED START DATE	UNFINISHED PROJECTS REQUIRED TO ACHIEVE SERVICE LEVEL Project Numbers Correspond To Those Presented In "Headway Reduction and Extensions" Chart	PROJECT COMPLETION DATE
43	Jul 92		
49	Dec 94	3. Central control display board modifications.	Dec 92
50	Sep 95	7. NXTGEN (portions required for extensions).	Mar 95
		9. Systemwide radio network.	Jul 95
57	Oct 95	10. A-line train control resignaling.	Jul 95
		11. A-line traction power increase.	Jul 95
61	Sep 96	8. Train destination identification enhancement.	Jul 95
63	Mar 97		
67	Mar 98		
71	Sep 98		
75	Jun 02		

* Includes trains added to achieve planned service headways and to provide service for extensions.

routings such that more than 60 trains can be operated at any one time. With a December 1994 scheduled completion date, this project will be in place well in advance of the planned start of 61 train service in September 1996.

The completion of the key projects identified above (as related to adding cars, reducing headways, and expanding online train capacity), supports the implementation timetable for BART's phase I extensions and future consideration for the implementation of extensions in phases II and III (see Figure 3-14, BART Extension Staging Policy).

SUPPORTING PROGRAMS

BART's FY 1992 Capital Improvement Program (CIP), a companion document to the SRTP, identifies projects the District will be implementing over the next ten years to maintain and improve the quality and quantity of rail service BART can provide. The projects fall into five basic categories. These are: safety and security, system rehabilitation, service improvements, operational efficiencies and capital administration, and extension related projects. [For details of these projects, refer to CIP.]

In addition to programmed capital projects, BART is also focusing on the research and development of new technologies to improve systemwide operational efficiency. Examples of this effort include an advanced automatic train control (ATC) system, superconducting magnetic energy storage, microprocessing systems to quickly restore train operations after ATC failure, and applications of artificial intelligence for maintenance diagnostics.

In support of improving access to stations, BART research and development efforts will be looking into the concepts of *multi-user* vehicles and the *electric station cars*. The latter concept envisions the installation of recharging mechanisms at stations for electric cars, which could be either single- or multi-user vehicles. BART's R&D efforts will monitor emerging technologies for the purpose of identifying possible applications which could have a positive impact on service and the environment. The District is committed to providing the kind of service which supports federal and state mandates for achieving clean air standards.

In advance of what new technologies may hold for how people get to and from stations in the future, BART will be improving system accessibility by implementing important projects which have been developed and identified as part of the MTC-regional planning process. These include the completion of transit centers at stations, implementation of TransLink (a new multi-operator regional pass), continuing to refine and improve the schedule/fare coordination with local operators which interface with BART, and expanding station parking (see Figure 3-15, Current and Planned Parking Spaces at Existing and Planned Rail Stations).

Figure 3-14

BART EXTENSIONS STAGING POLICY [1]

PHASE	INSIDE CURRENT DISTRICT OR UNDER FUNDING AGREEMENTS
I.	North Concord-West Pittsburg [2]
	Irvington-Warm Springs [8]
	Castro Valley - Dublin [3,8]
	MUNI Metro Extension Project [4]
	Colma-Tanforan-San Francisco Airport [5]
II.	Pittsburg-West Antioch-East Antioch
	Pleasanton-West Livermore-East Livermore [3]
	San Francisco [6]
	San Pablo-Hilltop
	Oakland Airport Connector [7]
III.	San Francisco [6]
	Pinole-Hercules/Rodeo-Crockett
	San Ramon Corridor

NOTES:

1. The several segments shown under each Roman numeral are understood to be implemented concurrently, to the extent that funding is available. BART will be the operator for any new heavy or light rail transit starts or extensions within the three BART counties.
2. To be extended east beyond West Pittsburg as funding permits, per SB 1715 of 1988.
3. Third station may be constructed only with funds additional to those identified in MTC Resolution 1876 (as revised in 1989).
4. The San Francisco Project is identified through coordination with the City and County of San Francisco as the MUNI Metro Extension to the CALTRAIN Depot South of Market.
5. Agreement of February 28, 1990 with SamTrans to proceed with SFO extension, subject to BART project approval.
6. Specific San Francisco Project to be identified through coordination with the City and County of San Francisco. Section 29034.5 of the California Public Utilities Code lists an extension of District services and facilities to the northwest section of the City and County of San Francisco as a District service commitment.
7. A people-mover, or some other mode of travel, to the Oakland Airport to be established before or at the same time as an extension of BART to the San Francisco Airport.
8. Funding from Proposition 116 shall not be allocated to the Warm Springs Extension (WSX) until funding for the Dublin-Pleasanton Extension has been guaranteed.

PHASE	OUTSIDE CURRENT DISTRICT [9]
I.	Milpitas
II.	Millbrae-Menlo Park
	Milpitas-San Jose
III.	Menlo Park-San Jose

9. Subject to a satisfactory cost-sharing arrangement with San Mateo and Santa Clara Counties and project approval by BART. Pursuant to Section 29034.5 of the California Public Utilities Code, only non-District funds may be spent by the District for the purpose of extending services and facilities outside of District's January 1, 1971 boundaries until the District meets specified service commitments within the 1971 boundaries.

Figure 3-15

CURRENT AND PLANNED PARKING SPACES AT EXISTING AND PLANNED RAIL STATIONS

		ACTUAL SPACES AS OF JUNE 1992	NEW SPACES JULY 1992 TO JUNE 2002	TOTAL SPACES PROJECTED BY JUNE 2002
EXISTING STATIONS				
SAN FRANCISCO LINE:	DALY CITY	2,228	0	2,228
	GLEN PARK	55	0	55
	WEST OAKLAND (a)	424	0	424
	SUBTOTAL	**2,707**	**0**	**2,707**
FREMONT LINE:	FREMONT	2,494	0	2,494
	UNION CITY (b)	1,218	0	1,218
	SOUTH HAYWARD	1,307	0	1,307
	HAYWARD	1,061	650	1,711
	BAY FAIR	1,903	0	1,903
	SAN LEANDRO	1,295	0	1,295
	COLISEUM	1,059	0	1,059
	FRUITVALE (b)	1,103	0	1,103
	LAKE MERRITT	205	0	205
	SUBTOTAL	**11,645**	**650**	**12,295**
RICHMOND LINE:	RICHMOND	796	0	796
	EL CERRITO DEL NORT	2,516	250	2,766
	EL CERRITO PLAZA (c)	795	250	1,045
	NORTH BERKELEY	840	0	840
	ASHBY	626	0	626
	MACARTHUR	609	0	609
	SUBTOTAL	**6,182**	**500**	**6,682**
CONCORD LINE:	CONCORD	1,975	600	2,575
	PLEASANT HILL	3,245	0	3,245
	WALNUT CREEK	1,518	775	2,293
	LAFAYETTE	1,521	0	1,521
	ORINDA	1,380	0	1,380
	ROCKRIDGE (b)	889	0	889
	SUBTOTAL	**10,528**	**1,375**	**11,903**
EXISTING STATIONS TOTAL		**31,062**	**2,525**	**33,587**
EXTENSION STATIONS				
DUBLIN LINE:	CASTRO VALLEY	0	1,200	1,200
	WEST DUBLIN	0	1,400	1,400
	EAST DUBLIN	0	3,000	3,000
	SUBTOTAL	**0**	**5,600**	**5,600**
PITTSBURG LINE:	NORTH CONCORD	0	2,050	2,050
	WEST PITTSBURG	0	2,000	2,000
	SUBTOTAL	**0**	**4,050**	**4,050**
WARM SPRINGS LINE:	IRVINGTON	0	1,200	1,200
	WARM SPRINGS	0	2,300	2,300
	SUBTOTAL	**0**	**3,500**	**3,500**
WEST BAY LINE:	COLMA	0	1,400	1,400
	HICKEY	0	1,300	1,300
	TANFORAN	0	650	650
	SFO INTERMODAL	0	2,325	2,325
	SUBTOTAL	**0**	**5,675**	**5,675**
EXTENSION STATIONS TOTAL		**0**	**18,825**	**18,825**
SYSTEM GRAND TOTAL		**31,062**	**21,350**	**52,412**

a. A future parking project is subject to reevaluation and identification of a funding source.
b. Contra Costa County Measure C provides funding for parking expansion in the City of El Cerrito. BART and the City are studying which station improvements are needed most. For illustrative purposes, a 500-space parking project is shown as being split between both El Cerrito stations.
c. No plans are identified for Union City, Fruitvale, and Rockridge stations.

In addition to these focus areas, BART will be implementing its Accessibility Program which responds to new federal regulations under the Americans With Disabilities Act (ADA). The program reflects BART's commitment to provide accessible services and has come about through numerous years of cooperative planning between the District and the BART Accessibility Task Force, other transit agencies, and representatives of various community organizations. BART's Accessibility Plan is embodied in several plans and documents. Details concerning this important program may be found in the following documents: Multi-Year Master Plan for BART Accessiblity Program (June 1990), BART Complementary Paratransit Service Plan or CPSP (January 1992), BART Key Station Plan (July 1992), and BART CIP For FYs 1993-2002 (September 1992).

CHAPTER 4

FISCAL YEAR FORECASTS

AND FINANCIAL PLAN

BART's SRTP financial plan focuses on the District's operating budget for the period FY 1993 through FY 2002. All sources of revenue and expense are considered, as well as sources of financial assistance. The starting point for the financial projections is BART's FY 1993 operating budget. This is the focus of the next section. Subsequent discussion identifies the assumptions upon which the out-year forecasts are based.

FISCAL YEAR 1993 OPERATING BUDGET

BART's operating budget for FY 1993 is summarized in the far left portion of Figure 4-1 (Ten Year Financial Forecast). This financial statement recognizes four key budget influencing factors. *First*, ridership and related revenue from passenger fares are expected to be only marginally above levels achieved in FY 1992, reflecting flattened ridership growth within the recessionary period. *Second*, labor costs match rising expense as called for under the July 1992 contracts with the two largest unions representing BART labor. *Third*, a slight easing of the economic recession is expected to result in somewhat better sales tax receipts over FY 1992 but still below the level achieved in FY 1991. *Fourth*, principal payments on revenue bonds recommence in FY 1993 and result in increased debt service which must be absorbed by the operating budget.

Despite these external pressures, BART has adopted an operating budget for FY 1993 with no fare increase, service reductions, layoffs, or deficits. Measures taken to balance BART's FY 1993 operating budget include the formulation of cost containment strategies and project and program options and tradeoffs. Further, a reorientation of schedules is included with resources reapplied to position the organization to avoid deficit spending and assure that highest priority objectives are achieved. These objectives fall under the categories of: service enhancement, system expansion and reinvestment, systemwide cost containment, safety and security measures, and staff skill development.

Ongoing efforts will continue to enhance and expand accurate and timely reporting systems which track performance. The standards against which BART performance is measured are contained in the updated set of program objectives for FY 1993. These are identified in Appendix B (FY 1993 BART Program Objectives). BART's FY 1993 operating budget supports achievement of the objectives, and is based on the following service parameters and assumptions.

FY 1993 Service Parameters and Assumptions

Service will be improved in FY 1993 despite cost reduction measures. Train run times will be faster (an improvement which took effect on June 22, 1992) and the same frequency of rail service is to be provided relative to the prior fiscal year. The new train schedule incorporates *timed meets* at MacArthur and 12th Street stations during two-route

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Figure 4-1
TEN YEAR FINANCIAL FORECAST

	FY 93 BUDGET	FY 94 F'CAST	FY 95 F'CAST	FY 96 F'CAST	FY 97 F'CAST	FY 98 F'CAST	FY 99 F'CAST	FY 00 F'CAST	FY 01 F'CAST	FY 02 F'CAST
REVENUES ($millions)										
GROSS RAIL REVENUE	112.9	119.1	123.2	133.9	144.1	149.9	154.3	156.9	158.7	166.1
EXPRESS BUS, SHUTTLES, ADA	1.0	1.4	1.8	2.0	2.0	2.1	2.2	2.3	2.4	2.6
LESS DISCOUNTS, etc.	(13.3)	(13.9)	(14.4)	(15.6)	(16.8)	(17.5)	(18.0)	(18.3)	(18.5)	(19.4)
NET PASSENGER REVENUE	100.6	106.7	110.7	120.3	129.3	134.5	138.6	141.0	142.6	149.3
INTEREST REVENUE	6.6	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4
OTHER OPERATING REVENUE	3.0	3.2	3.4	3.5	3.7	3.9	4.1	4.3	4.5	4.7
SUBTOTAL NON-FARE REVENUE	9.6	10.6	10.8	10.9	11.1	11.3	11.5	11.7	11.9	12.1
REVENUE GAP	0.0	0.7	7.0	34.1	57.6	72.8	91.7	103.7	117.0	128.9
TOTAL OPERATING REVENUES	110.2	118.0	128.4	165.4	198.0	218.5	241.7	256.3	271.5	290.3
EXPENSES ($millions)										
NET LABOR	153.3	160.6	170.9	200.8	218.6	236.7	257.1	271.3	286.1	303.5
EXPRESS BUS SERVICE	6.5	6.1	6.2	4.9	4.4	4.6	4.8	5.1	5.3	5.6
SHUTTLE SERVICE	0.3	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.6
PURCHASED TRANSPORTATION	1.6	1.6	1.7	1.8	1.8	1.9	1.9	2.0	2.1	2.2
ADA	0.0	1.0	2.3	3.6	4.3	4.5	4.8	5.0	5.2	5.5
POWER	21.7	22.5	23.8	29.7	33.2	36.3	39.4	41.6	43.9	46.7
OTHER NON-LABOR	29.6	32.4	34.5	40.7	44.7	48.6	52.9	55.9	59.0	62.8
PERS	0.0	0.0	0.0	0.0	12.2	12.8	13.4	14.1	14.8	15.5
TOTAL OPERATING EXPENSES	213.0	224.5	239.8	281.9	319.7	345.8	374.8	395.5	416.9	442.3
OPERATING DEFICIT ($millions)	(102.7)	(106.5)	(111.4)	(116.5)	(121.8)	(127.3)	(133.1)	(139.1)	(145.4)	(152.0)
FINANCIAL ASSISTANCE ($millions)										
SALES TAX (BART 75%)	108.5	112.3	116.2	120.3	124.5	128.8	133.3	138.0	142.8	147.8
PROPERTY TAX	12.0	12.9	13.9	14.9	16.1	17.3	18.6	19.9	21.4	23.0
STA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TDA STATE ASSISTANCE	0.5	0.5	0.5	0.6	0.6	0.6	0.7	0.7	0.7	0.8
DEBT SERVICE ALLOCATIONS	(18.3)	(19.2)	(19.2)	(19.3)	(19.4)	(19.4)	(19.5)	(19.5)	(19.6)	(19.6)
OTHER CAPITAL ALLOCATIONS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NET FINANCIAL ASSISTANCE	102.7	106.5	111.4	116.5	121.8	127.3	133.1	139.1	145.4	152.0
FINANCIAL RESULT ($millions)	0.0	0.0	(0.0)	(0.0)	0.0	0.0	0.0	0.0	0.0	0.0
FINANCIAL INDICATORS										
SYSTEM OPERATING RATIO	52%	53%	54%	59%	62%	63%	64%	65%	65%	66%
RAIL COST/PASSENGER MILE (cents)	22.34	22.52	22.89	25.01	26.52	27.64	29.21	30.36	31.57	31.55
PASSENGER MILES (millions)	915.8	956.8	1,001.1	1,084.4	1,164.4	1,209.9	1,242.1	1,261.0	1,279.1	1,357.9
RAIL PASSENGERS (millions)	73.3	76.7	79.5	84.7	89.9	92.7	94.7	96.2	97.5	101.7
AVERAGE WEEKDAY TRIPS (thousands)	253	264	274	292	310	320	327	332	336	351
TRIPS/EQ OP EMPLOYEE (thousands)	29.7	30.7	31.2	29.4	30.0	29.9	29.4	29.7	30.0	30.9

X service (i.e., night service and all day Sunday) to minimize passenger waiting. Also, there is to be a significant BART police presence on trains, particularly during night service. The FY 1993 operating budget also supports vehicle reliability improvements.

FY 1993 Ridership and Revenues

BART's FY 1993 operating budget assumes continuation of the recession with a recovery taking hold no sooner than mid-fiscal year. Ridership under this economic condition is assumed to grow by about 1% over FY 1992, or to 73.3 million riders. The budget also assumes increased revenue from the BART/MUNI Fast Pass agreement due to BART ridership growth within San Francisco (for Fast Pass trips), and an increase in the price of the Fast Pass from $30 to $32 which became effective August 1992.

Interest earnings, which include interest earned on revenue bonds, are budgeted at $6.6 million, an increase of $2.3 million relative to the FY 1992 budget. Other operating revenue shows a budgeted decrease, from $3.4 million to $3.0 million, due mainly to the cancellation of the Host International concessions contract. In response to this, efforts in FY 1993 will focus on realizing greater revenue from existing sources (i.e., pay telephones, other concession, fiber optics, rentals, leases, fines, forfeitures, etc.) and identifying new sources of non-fare revenue.

FY 1993 Staffing

The FY 1993 operating budget supports BART's emphasis on improving skills and overall employee development. A philosophy of employee empowerment will continue to be stressed and backed by programs which reward excellent performance. As a cost containment measure, close attention will be given to use of overtime and the rate of employee absenteeism. BART's operating staff headcount is budgeted at 2,471, unchanged from last fiscal year.

FY 1993 Operating Expense

Net operating labor costs are budgeted to rise 1.4% over the FY 1992 budget despite the 4.1% wage increase (in accordance with the July 1992 labor contract). Revising employee health care coverage to all-HMO services is the key factor responsible for this cost savings. Additional cost savings in FY 1993 versus last fiscal year are to be realized by the restructuring of BART express bus routes and discontinuance of the AC Transit transfer payment. The FY 1993 operating budget contains no allocations to capital. [Allocations from operating sources made last fiscal year to rehabilitation programs for A- and B-cars and for stations are discontinued in FY 1993. These programs are now funded through capital program sources.] The budget does, however, contain a

substantial $8.0 million increase over the FY 1992 budget for debt service. This reflects the repayment schedules for the 1990 bond issue.

FY 1993 Financial Assistance

Property tax receipts in FY 1993 are expected to be $12.0 million, an increase of $1.7 million over the prior fiscal year. Sales tax assistance is budgeted at $108.5 million in FY 1993, slightly higher than FY 1992's actual of $105.5 million. As a result of the recession, sales tax assistance is still expected to be 0.5% less than the $109.0 million achieved in FY 1991.

FY 1993 Key Financial Indicators

BART's FY 1993 operating budget is balanced at fares which have not increased since 1986. The cost containment measures and focus of BART's overall program is expected to result in the achievement of key financial indicators at, or better, than those levels for FY 1992. The budgeted rail farebox ratio is 46.8%, up from 45.6% last fiscal year. Similarly, the system operating ratio is budgeted this fiscal year at 51.8% versus 49.5% last year; and the rail cost per passenger mile shows a favorable decrease from 22.7¢ last year to 22.3¢ in the current year's budget.

FINANCIAL FORECASTS FOR FY 1994 THROUGH FY 2002

Forecasts of expense, revenue, and financial assistance were developed based on prior-year work completed for the 1991 SRTP and the FY 1993 budget process. Further, the financial forecast was developed on the basis of providing full service (i.e., current levels of off-peak service would be maintained and provided on extension segments as they come on line and additional peak period service would be operated systemwide as called for in Chapter 3). Strategies which call for reduced or curtailed service were not included in this analysis. These, however, have not been excluded as potential budget-balancing actions which may need to be investigated in the future. The detailed line-item forecast is presented in Figure 4-1 (Ten Year Plan Financial Forecast).

Operating Expense

Operating expense projections for the nine out-years were made with the BART Operating and Maintenance Cost Model which was developed for the extensions service planning effort, and recently updated and revised for SRTP planning purposes. Fiscal year expense is estimated in current year dollars and is based on forecasts for 25 key operating parameters for each of the nine forecast years. Cost relationships are based

primarily on the FY 1991 budget. Adjustments were made to reflect the FY 1993 operating budget and more recent operating experience. Expense forecasts reflect the service improvements discussed in previous chapters of this document. The assumed annual inflation factors used for estimating components of expense are based on Bay Area price increases and forecasts and include:

1. Labor expense is inflated at 5.0% throughout the ten year period. The financial plan also includes a resumption of PERS contributions which are assumed to start in FY 1997 at $12.2 million ($10.0 million inflated at 5.0% beginning in FY 1993).

2. All non-labor costs are inflated at 5.0%. The one exception is electric power which is inflated at 6.0%.

3. Express bus expense is based on the current Laidlaw contract, and assumes a 5.0% annual inflation factor for agreements after the current contract expires in December 1993. It is assumed that efficiency improvements are made in FY 1993 such that a 10% savings is realized. Express bus service is assumed to be discontinued when parallel extension rail service begins. A 25% express bus service cutback is assumed to take place in FY 1996 when rail service to North Concord and East Dublin begins. An additional 15% reduction is assumed in FY 1997 when rail service to West Pittsburg begins.

4. Purchased transportation (i.e., transfer payments) is based on the FY 1993 budget and is assumed to grow at the same rate as sales tax assistance (3.5%).

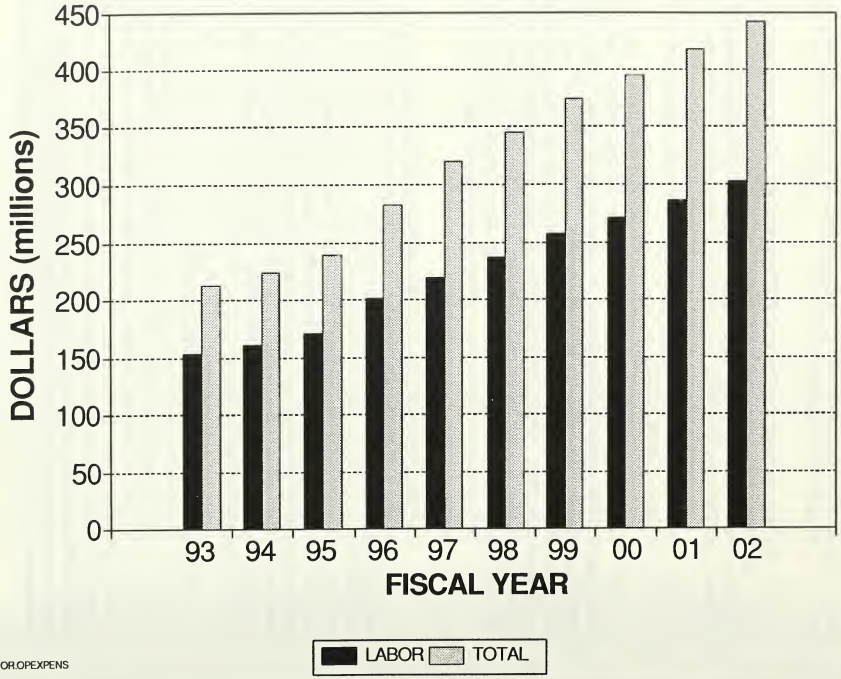
5. The anticipated effect of implementing the service called for in the BART Complementary Paratransit Service Plan in response to ADA regulations has been included in the ten year financial forecast: $1.0 million in FY 1994, $2.3 million in FY 1995, $3.6 million in FY 1996, and $4.3 million in FY 1997 (the first year of full ADA-CPSP service). A 5.0% inflation factor is assumed for years beyond FY 1997.

6. Expense of servicing the debt associated with the 1991 revenue bonds does not impact the operating budget. The revenue generated by these bonds has been shown as an income item and is included under *interest revenue*. This is offset by an equal expense amount and is included under *debt service allocation*.

Based on the above assumptions combined with the planned expansion of service, total operating expense (Figure 4-2, Annual Operating Expense) is projected to increase at an average rate of 8.5% annually, from $213.0 million in FY 1993 to $442.3 million in FY

Figure 4-2

ANNUAL OPERATING EXPENSE



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2002. This is 6.2% less than the $471.5 million estimate for FY 2002 identified in last year's SRTP. [The higher estimate made last year was based on a maximum average *peak hour* load factor of 1.15. This is more stringent than the currently adopted policy which calls for a maximum average load factor of 1.15 during the entire *peak period*, each of which lasts two and one-half hours.]

Since labor costs constitute approximately three-quarters of BART's total operating expense, this important line item is shown separately in Figure 4-2 (Annual Operating Expense). This expense, which is forecast to increase at an average annual rate of 7.9% reflects both the effects of inflation as well as staffing increases required to support higher service levels. On an operating equivalent employee basis, BART's workforce is forecast to grow by about a third, from 2,471 operating positions in FY 1993 to 3,274 positions in FY 2002. In addition to these operating positions, are approximately 250 positions which are needed to support BART's capital program. Fiscal year operating staff requirements are shown in Figure 4-3 (Equivalent Operating Employees). When matched against gains in passenger miles (at current fares), FY 2002 shows an 11.3% increase in the number of annual passenger miles per equivalent employee versus the FY 1993 budget (Figure 4-4, Passenger Miles Per Equivalent Operating Employee).

Note that, as shown in Figure 4-2 (Annual Operating Expense), express bus expense is forecast to decrease from $6.5 million in FY 1993 to $5.6 million in FY 2002, reflecting revised express bus service as rail extensions are brought on line.

Passenger Revenue

Model output with respect to demand (Figure 4-5, Total Annual Rail Ridership) and average net rail fare per trip, which is currently $1.36, provide the bases for estimating passenger revenue for each fiscal year in the current ten year period. Gross rail fare revenue and discounts are estimated using the historical relationships among these fare components. Express bus revenue is based on 1991 SRTP estimates, and includes the effect of service revisions required when extensions come on line. Additionally, ADA-CSPS service is assumed to recover 15% of this expense item through passenger fares and has been added to BART's overall revenue forecast.

To establish a basis for discussing future revenue needs and other budget-balancing measures, forecasts for passenger revenue were developed at current fares. On this basis, net passenger revenue starts out at the FY 1993 budgeted level of $100.6 million and increases at an average annual rate of 4.5% (due to ridership growth and increasing average fares as extensions come on line) to $149.3 million in FY 2002.

Figure 4-3

EQUIVALENT OPERATING EMPLOYEES

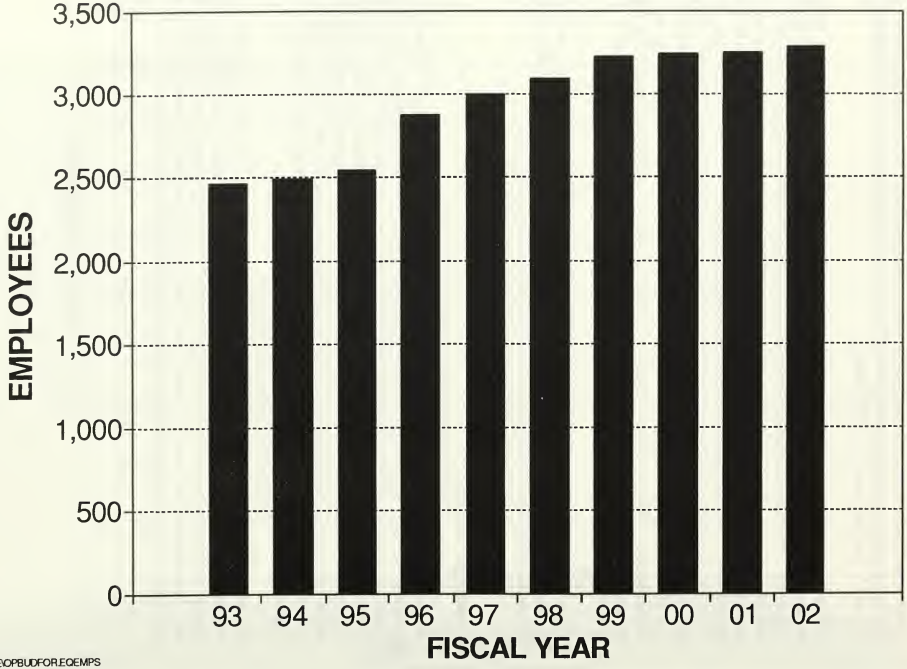

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Figure 4-4

PASSENGER MILES/EQUIV. OP. EMPLOYEE

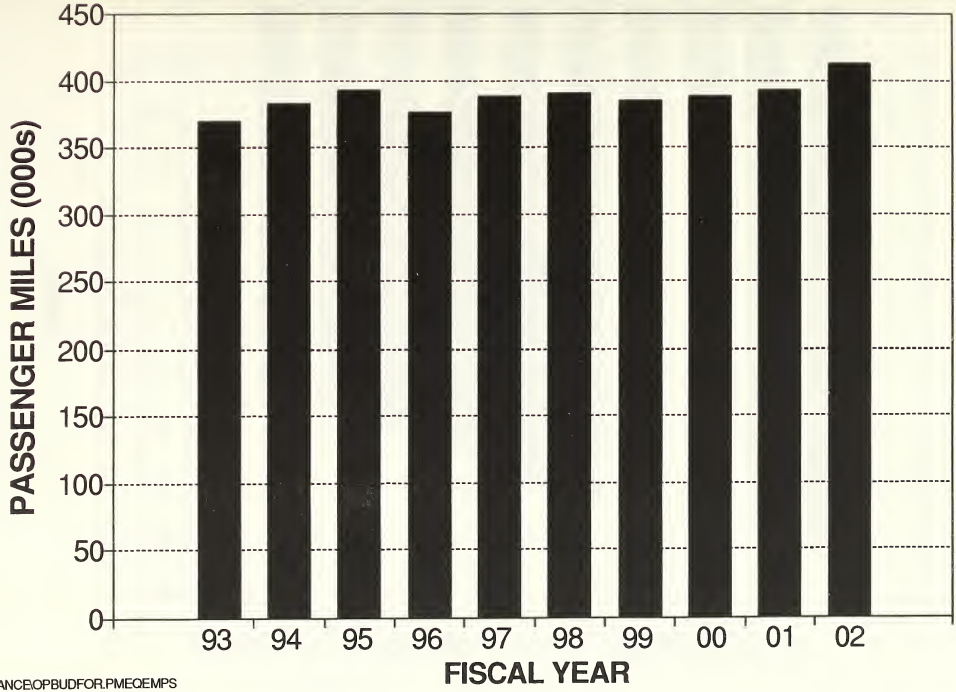

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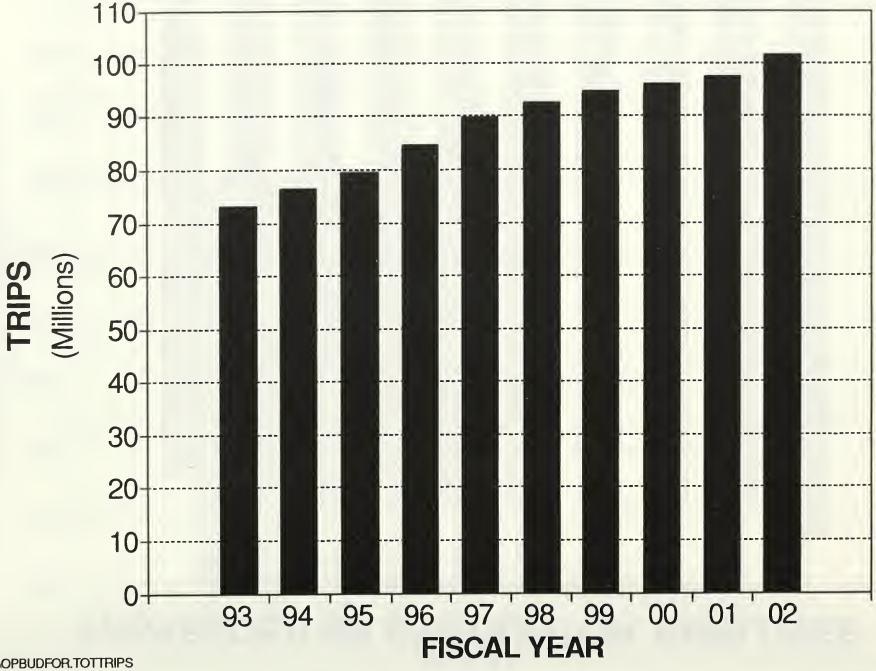
Figure 4-5

TOTAL ANNUAL RAIL RIDERSHIP



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Non-Fare Revenue

Non-fare operating revenue sources include interest on investments and miscellaneous other operating revenues which come from agreements and/or fees for concessions, advertising, fiber optics, rentals, parking, fines and forfeitures, and joint development. This and other non-fare operating revenue sources are assumed to generate interest at a conservative 5.0% rate.

Financial Assistance

The largest source of financial assistance currently available to BART is the 75% share the District receives of the ½¢ sales tax in the three-BART counties. Starting at the lower base of $108.5 million for FY 1993 (0.5% lower than FY 1991 actual receipts), reflecting the impact of the recession, it is projected that BART can expect to receive $147.8 million in FY 2002. This assumes a conservative 3.5% annual increase over the ten year period.

Financial assistance through property taxes in the three-BART counties is forecast to increase at an average annual rate of 7.5%. This is based on historical trends for BART property tax receipts, which, on average, have increased between 6% and 11% annually. At the assumed rate and starting at the budgeted $12.0 million in FY 1993, BART is projected to receive $23.0 million in property tax assistance in FY 2002.

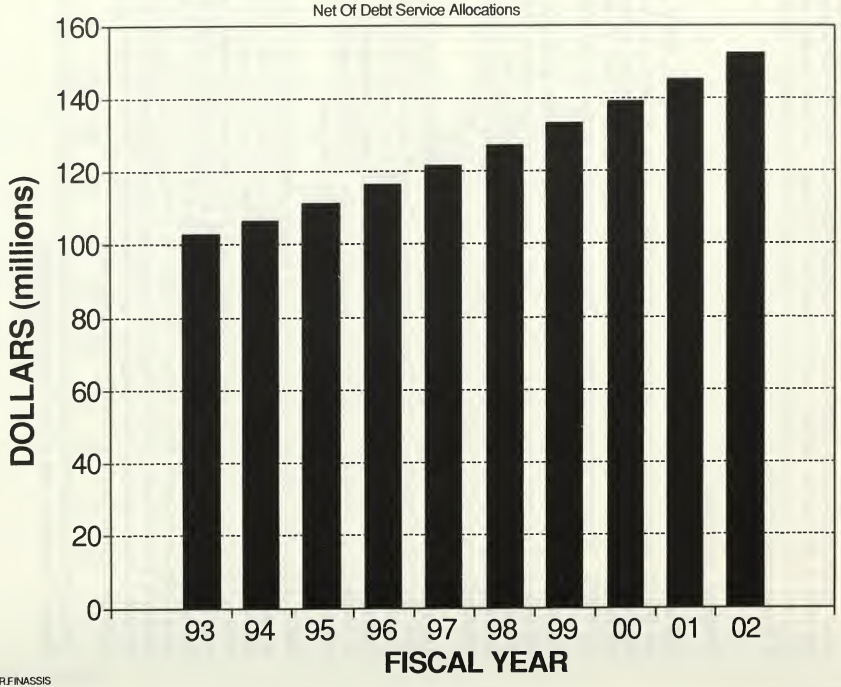
The only other source of operating budget financial assistance, one which contributes less than $1.0 million annually, is from State Transportation Development Act (TDA) funds. Projected levels of TDA are based on BART's budgeted FY 1993 amount of $0.5 million from this source, at 5.0% growth per year. Note that no State Transit Assistance (STA) is forecast to be available for operating purposes throughout the ten year period. This source of funds has been assumed to support BART's capital program.

BART accounting practices include taking debt service allocations and other capital allocations net of financial assistance. Following in this practice, BART's debt service allocation is a fixed amount based on repayment schedules for revenue bonds. [This does not include the original General Obligation Bonds which are funded through capital program sources.] Based on the schedules for the 1990 and 1991 revenue bonds, debt service allocations from the operating budget start out at $18.3 million in FY 1993 and grow slightly each year to $20.4 million in FY 2002. As previously noted in point 6 of the Operating Expense section in this chapter, the expense of servicing the debt of the 1991 revenue bonds is offset by the interest earned on these bonds. There is no net impact, therefore, of these bonds on BART's operating budget.

Annual financial assistance net of debt service allocations is shown in Figure 4-6 (Annual Financial Assistance Net of Debt Service Allocations).

Figure 4-6

ANNUAL FINANCIAL ASSISTANCE



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Financial Result

The operating budget forecast financial result is equal to the operating deficit (a negative value equal to total operating revenue less total operating expense) plus financial assistance. As shown in Figure 4-7 (Annual Revenue Gap, Total Income Less Expense), BART's financial outlook under current fares and existing sources of revenue starts out balanced in FY 1993 with revenue gap appearing as soon as FY 1994, at $0.7 million, growing to $128.9 million by FY 2002.

For planning purposes, the additional new revenue needed to close this gap and balance BART's operating budget through the ten year period is assumed to come from a variety of sources. This amount is shown in Figure 4-1 (Ten Year Forecast) and is identified as Additional New Revenue. Sources for generating the amounts shown on this line item will need to be identified, and will be the focus of the 1993 Short Range Transit Planning cycle.

Financial Performance Indicators

BART's operating ratio for during the current planning period is shown in Figure 4-8 (System Operating Ratio). Year-to-year gains for the operating ratio, from 52% in FY 1993 to 66% in FY 2002, reveal increased reliance on passenger fares and other operating income to support planned operations. Conversely, projected financial assistance (sales and property tax, in particular) is expected to cover a declining share of operating expenses as BART service is expanded and extended.

BART's rail cost per passenger mile (Figure 4-9, Rail Cost Per Passenger Mile) is forecast to increase from a budgeted 22.3¢ in FY 1993 to 31.6¢ by FY 2002. This is equal to an average annual growth rate of 3.9%, which is below the assumed 5.0% rate of inflation. This means that, on a unit cost basis, BART is forecast to achieve greater efficiency as the system expands and ridership increases (Figure 4-10, Average Weekday Ridership).

Figure 4-7

ANNUAL REVENUE GAP

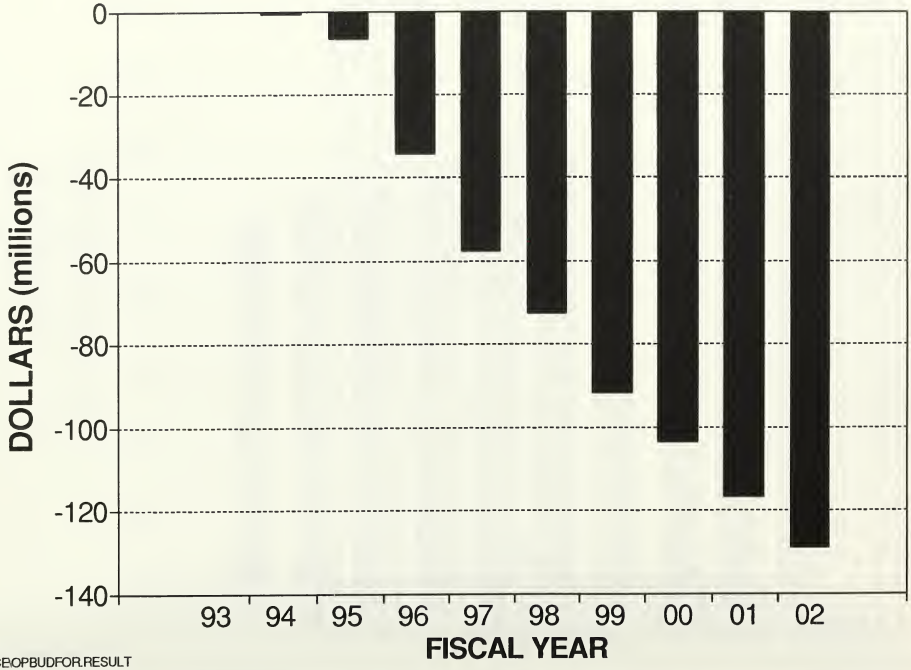

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Figure 4-8

SYSTEM OPERATING RATIO

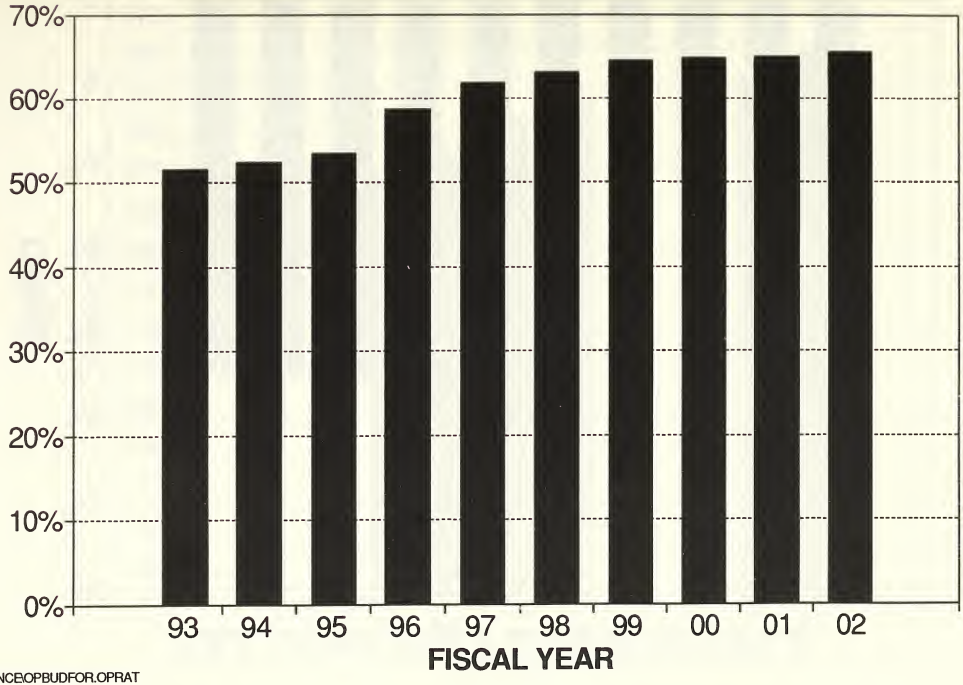

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Figure 4-9

RAIL COST PER PASSENGER MILE

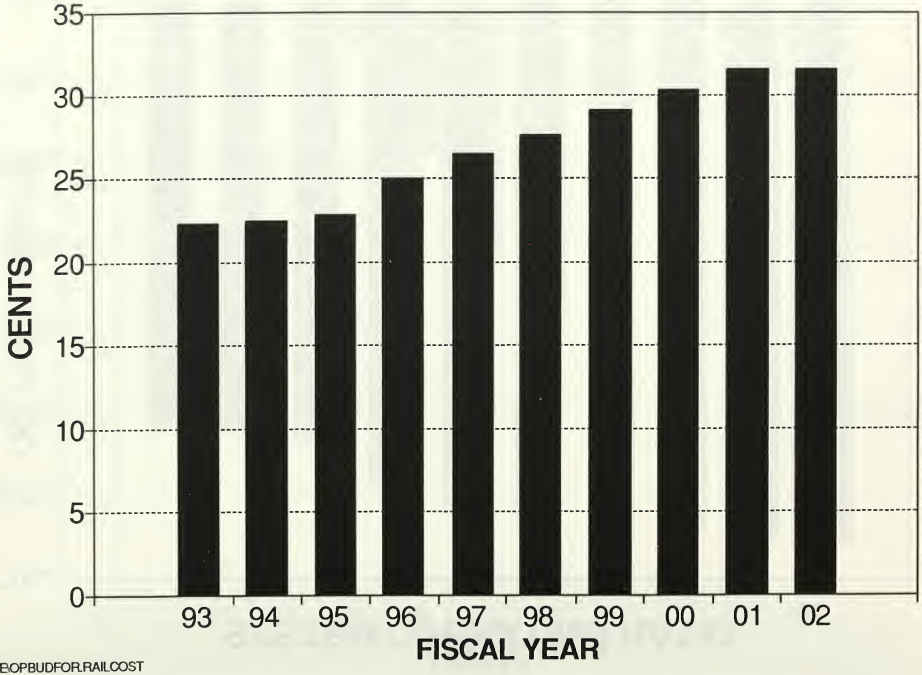

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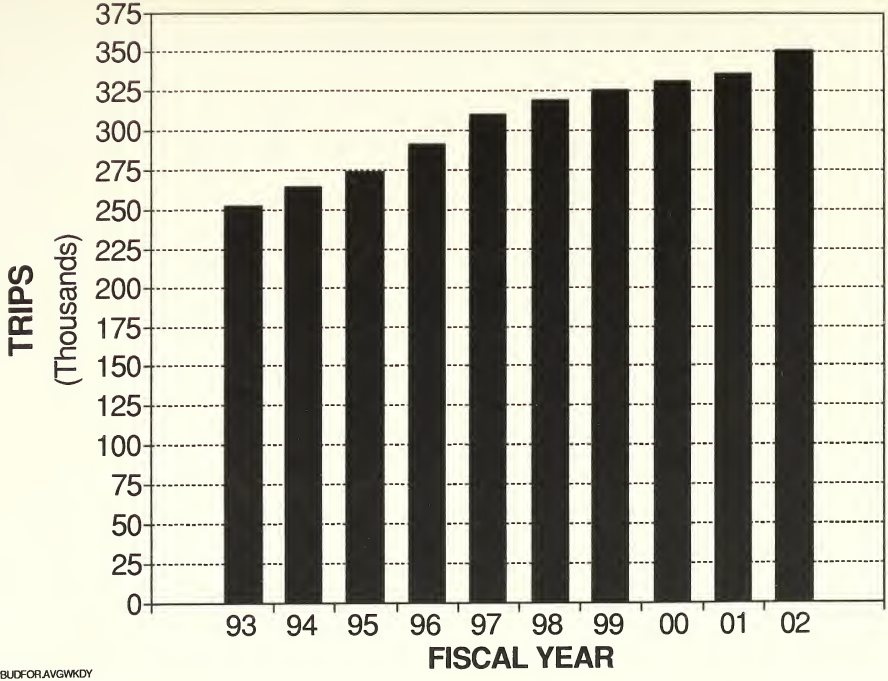
Figure 4-10

AVERAGE WEEKDAY RIDERSHIP



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APPENDICES

APPENDIX A

MASTER SPREADSHEET

BART SERVICE EXPANSION

AND KEY SYSTEM COMPONENTS

HEADWAY REDUCTION

AND EXTENSIONS

BART SERVICE ESTIMATES AND BUS FEEDER EXCHANGE
HEADWAY REDUCTION AND EXTENSIONS
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*** ENTER POLICY LOAD FACTOR HERE = 1.15 ***
*** LOAD FACTORS DURING CAR REHAB = 1.15 1.15 ***

RANGE A1..O61
TOTAL RANGE = A1..CO63

PADRON MODEL RIDERSHIP AND DERIVED FIGURES

FY & QTR MONTH ENDING	SERVICE LEVEL	EVENT AND/OR SERVICE DESCRIPTION	MINIMUM HEADWAY seconds	MAXIMUM TRAING/HR THRU	PLN'D
90-Mar 90	Base	Actual service	180	20	17
90-Jun 90	Base	Actual service	180	20	17
91-Sep 90	Base	Actual service	180	20	17
91-Dec 90	Base	Actual service	180	20	17
91 Mar 91	Base	Actual service	180	20	17
91-Jun 91	Base	Actual service	180	20	17
92-Sep 91	Base	Actual service	180	20	17
92-Dec 91	Base	Actual service	180	20	17
92-Mar 92	Base	Actual service	180	20	17
92-Jun 92	**A**	Actual service	180	20	17
93-Sep 92	A		180	20	17
93 Dec 92	A		180	20	17
93-Mar 93	A		180	20	17
93-Jun 93	A		180	20	17
94-Sep 93	A		180	20	17
94-Dec 93	A		180	20	17
94-Mar 94	A		180	20	17
94-Jun 94	A		180	20	17
95-Sep 94	A		180	20	17
95-Dec 94	**B**	Headway cut	135	26	20
95-Mar 95	B		135	26	20
95 Jun 95	B		135	26	20
96-Sep 95	B	Ho. Concord/Colma	135	26	20
96-Dec 95	B	East Dublin	135	26	24
96-Mar 96	B		135	26	24
96-Jun 96	B		135	26	24
97-Sep 96	**C**	Headway cut	135	26	26
97-Dec 96	C		135	26	26
97-Mar 97	C	West Pittsburg	135	26	26
97-Jun 97	C		135	26	26
98-Sep 97	C		135	26	26
98-Dec 97	C		135	26	26
98-Mar 98	C	Warm Springs	135	26	26
98-Jun 98	C		135	26	26
99-Sep 98	**D**	W. Dublin/Bdwy cut	120	30	28
99-Dec 98	D		120	30	28
99-Mar 99	D		120	30	28
99-Jun 99	D		120	30	28
00-Sep 99	D		120	30	28
00-Dec 99	D		120	30	28
00-Mar 00	D		120	30	28
00-Jun 00	D		120	30	28
01-Sep 00	D		120	30	28
01-Dec 00	D		120	30	28
01-Mar 01	D		120	30	28
01-Jun 01	D		120	30	28
02-Sep 01	D		120	30	28
02-Dec 01	D		120	30	28
02-Mar 02	D		120	30	28
02-Jun 02	**D**	SF Airport	120	30	28

BASE RIDERSHIP AVGWKDY	PKHOUR	%PKHR
		actual
		actual
		actual
		actual
		actual
		actual
		actual
		actual
255,409	36,964	14.5%
259,865	37,640	14.5%
268,937	39,700	14.8%
279,419	41,280	14.8%
305,229	44,590	14.6%
314,980	45,978	14.6%
324,120	47,160	14.6%
329,199	47,880	14.5%
334,484	48,489	14.5%
338,121	49,193	14.5%
377,943	54,601	14.4%

INTERPOLATED FIGURES AVGWKDY	PKHOUR	%PKHR
237,918		
244,168		
248,843		
246,504		
244,572		
249,747		
249,494		
248,196		
250,757	36,176	14.5%
249,721	36,141	14.5%
252,219	36,502	14.5%
254,743	36,868	14.5%
257,291	37,236	14.5%
259,865	37,640	14.5%
262,104	37,964	14.5%
264,362	38,291	14.5%
266,640	38,621	14.5%
268,937	39,700	14.8%
271,520	40,081	14.8%
274,128	40,466	14.8%
276,761	40,855	14.8%
279,419	41,280	14.8%
285,659	42,202	14.8%
292,039	43,144	14.8%
298,561	44,108	14.8%
305,229	44,590	14.6%
307,638	44,942	14.6%
310,066	45,297	14.6%
312,513	45,654	14.6%
314,979	45,978	14.6%
317,240	46,308	14.6%
319,516	46,640	14.6%
321,810	46,975	14.6%
324,119	47,160	14.6%
325,381	47,344	14.6%
326,649	47,528	14.6%
327,921	47,713	14.6%
329,198	47,880	14.5%
330,511	48,071	14.5%
331,830	48,263	14.5%
333,154	48,455	14.5%
334,483	48,489	14.5%
335,389	48,620	14.5%
336,297	48,752	14.5%
337,207	48,884	14.5%
338,120	49,193	14.5%
339,811	49,439	14.5%
341,510	49,686	14.5%
343,217	49,934	14.5%
377,942	54,601	14.4%

MAX SCREENLINE TRIP CONVERSION T0B0.I150	EB0.0133	TOTSUM
29,031	3,123	32,154
29,236	3,176	32,412
29,431	3,323	32,754
27,975	3,513	31,488
29,180	3,384	32,564
28,410	3,283	31,693
28,619	3,349	31,968
28,643	3,303	31,946
28,691	3,318	32,009
28,718	3,321	32,039
29,005	3,355	32,360
29,295	3,388	32,683
29,588	3,422	33,010
29,884	3,456	33,341
30,142	3,486	33,628
30,402	3,516	33,918
30,664	3,546	34,210
30,928	3,577	34,505
31,225	3,611	34,836
31,525	3,646	35,171
31,827	3,681	35,508
32,133	3,716	35,849
32,851	3,799	36,650
33,584	3,884	37,469
34,335	3,971	38,305
35,101	4,060	39,161
35,378	4,092	39,470
35,658	4,124	39,781
35,939	4,156	40,095
36,223	4,189	40,412
36,483	4,219	40,702
36,744	4,250	40,994
37,008	4,280	41,288
37,274	4,311	41,584
37,419	4,328	41,746
37,565	4,344	41,909
37,711	4,361	42,072
37,858	4,378	42,236
38,009	4,396	42,405
38,160	4,413	42,574
38,313	4,431	42,744
38,466	4,449	42,914
38,570	4,461	43,030
38,674	4,473	43,147
38,779	4,485	43,264
38,884	4,497	43,381
39,078	4,519	43,598
39,274	4,542	43,816
39,470	4,565	44,035
43,463	5,027	48,490

TOTAL INCREMENTAL ADDITIONS TO BASE SYSTEM
PERCENT INCREASE OVER BASE SYSTEM

BRAT SERVICE EXPANSION AND KEY SYSTEM COMPONENTS
DEADHEAD REDUCTION AND EXTENSIONS
FILE: C:\SBTP\PS2\SERVICE\SERVFLW3
09/18/92
*** ENTER POLICY LOAD FACTOR HERE : 1.15 ***
*** LOAD FACTORS DURING CAR REHAB : 1.15 1.15 ***

PAGE 2
RANGE - AI..AJ61, HIDE COLUMNS G..O
TOTAL RANGE - AI..CD63

FY & QTR MONTH ENDING	SERVICE LEVEL	EVENT AND/OR SERVICE DESCRIPTION	MINIMUM DEADHEAD CAPABILITY seconds	MAXIMUM DEADHEAD TRANSIT THEO	PLN'D	Policy Load Factor : 1.15 TRIPS	CARS	SEATS	LP	RIDERSHIP GROWTH QTR	CUMM	ANN	Policy Load Factor : 1.15 TRIPS	CARS	SEATS	LP	RIDERSHIP GROWTH QTR	CUMM	ANN	Policy Load Factor : 1.15 TRIPS	CARS	SEATS	LP	RIDERSHIP GROWTH QTR	CUMM	ANN
90-Mar 90	Base	Actual service	180	20	17	29,031	340	24,456	1.19	0.00%	0.00%	na	3,123	47	3,406	0.92	0.00%	0.00%	na	32,154	387	27,862	1.15	0.00%	0.00%	na
90 Jun 90	Base	Actual service	180	20	17	29,236	337	24,277	1.20	0.71%	0.71%	na	3,176	48	3,441	0.92	1.70%	1.70%	na	32,412	385	27,718	1.17	0.80%	0.80%	na
91 Sep 90	Base	Actual service	180	20	17	29,431	339	24,397	1.21	0.67%	1.38%	na	3,323	48	3,478	0.96	4.63%	6.40%	na	32,754	387	27,875	1.18	1.06%	1.87%	na
91 Dec 90	Base	Actual service	180	20	17	27,975	327	23,518	1.19	-4.95%	-3.61%	na	3,513	49	3,531	0.99	5.72%	12.19%	na	31,488	376	27,049	1.16	-3.83%	-2.07%	na
91-Mar 91	Base	Actual service	180	20	17	28,180	335	24,104	1.21	4.31%	0.51%	na	3,384	49	3,532	0.96	-3.67%	8.36%	na	32,564	384	27,636	1.18	3.42%	1.28%	na
91-Jun 91	Base	Actual service	180	20	17	28,410	342	24,654	1.15	-2.64%	-2.14%	na	3,283	50	3,630	0.90	-2.98%	5.12%	na	31,693	393	28,284	1.12	-2.67%	-1.43%	na
92-Sep 91	Base	Actual service	180	20	17	28,619	350	25,181	1.14	0.74%	-1.42%	na	3,349	49	3,506	0.96	2.01%	7.24%	na	31,968	398	28,687	1.11	0.87%	-0.58%	na
92-Dec 91	Base	Actual service	180	20	17	28,643	342	24,642	1.16	0.08%	-1.34%	na	3,303	51	3,636	0.91	-1.37%	5.76%	na	31,946	393	28,278	1.13	-0.07%	-0.65%	na
92-Mar 92	Base	Actual service	180	20	17	28,643	346	24,912	1.15	0.00%	0.00%	na	3,303	51	3,672	0.90	0.00%	0.00%	na	31,946	397	28,584	1.12	0.00%	0.00%	na
92-Jun 92	**A**	Actual service	180	20	17	28,718	347	24,972	1.15	0.26%	0.26%	na	3,321	40	2,888	1.15	0.55%	0.55%	na	32,039	386	27,792	1.15	0.29%	0.29%	na
93-Sep 92	A		180	20	17	29,005	350	25,222	1.15	1.00%	1.26%	na	3,355	41	2,917	1.15	1.00%	1.56%	na	32,360	390	28,000	1.15	1.00%	1.30%	na
93-Dec 92	A		180	20	17	29,295	354	25,474	1.15	1.00%	2.28%	na	3,388	41	2,946	1.15	1.00%	2.58%	na	32,683	394	28,360	1.15	1.00%	2.31%	na
93-Mar 93	A		180	20	17	29,588	357	25,729	1.15	1.00%	3.30%	3.30%	3,422	41	2,976	1.15	1.00%	3.60%	3.60%	33,010	398	28,656	1.15	1.00%	3.33%	3.33%
93-Jun 93	A		180	20	17	29,884	361	25,986	1.15	1.00%	4.33%	4.06%	3,456	42	3,005	1.15	1.00%	4.64%	4.06%	33,341	402	28,944	1.15	1.00%	4.37%	4.06%
94-Sep 93	A		180	20	17	30,142	364	26,210	1.15	0.86%	5.23%	3.92%	3,486	42	3,031	1.15	0.86%	5.54%	3.92%	33,628	406	29,232	1.15	0.86%	5.26%	3.92%
94-Dec 93	A		180	20	17	30,402	367	26,436	1.15	0.86%	6.14%	3.78%	3,516	42	3,057	1.15	0.86%	6.45%	3.78%	33,918	409	29,448	1.15	0.86%	6.17%	3.78%
94-Mar 94	A		180	20	17	30,664	370	26,664	1.15	0.86%	7.05%	3.63%	3,546	43	3,084	1.15	0.86%	7.37%	3.63%	34,210	413	29,736	1.15	0.86%	7.09%	3.63%
94-Jun 94	A		180	20	17	30,928	374	26,894	1.15	0.86%	7.98%	3.49%	3,577	43	3,110	1.15	0.86%	8.29%	3.49%	34,505	416	29,952	1.15	0.86%	8.01%	3.49%
95-Sep 94	A		180	20	17	31,225	377	27,152	1.15	0.96%	9.01%	3.59%	3,611	44	3,140	1.15	0.96%	9.33%	3.59%	34,836	420	30,240	1.15	0.96%	9.05%	3.59%
95-Dec 94	**B**	Headway cut	135	26	20	31,525	381	27,413	1.15	0.96%	10.06%	3.69%	3,646	44	3,170	1.15	0.96%	10.38%	3.69%	35,171	424	30,528	1.15	0.96%	10.09%	3.69%
95-Mar 95	B		135	26	20	31,827	384	27,676	1.15	0.96%	11.12%	3.80%	3,681	44	3,201	1.15	0.96%	11.44%	3.80%	35,508	428	30,816	1.15	0.96%	11.15%	3.80%
95-Jun 95	B		135	26	20	32,133	388	27,942	1.15	0.96%	12.19%	3.90%	3,716	45	3,232	1.15	0.96%	12.51%	3.90%	35,849	432	31,104	1.15	0.96%	12.22%	3.90%
95-Sep 95	B	No. Concord/Colma	135	26	20	32,851	397	28,566	1.15	2.23%	14.69%	5.21%	3,799	46	3,304	1.15	2.23%	15.02%	5.21%	36,650	442	31,824	1.15	2.23%	14.73%	5.21%
96-Dec 95	B	East Dublin	135	26	24	33,584	406	29,204	1.15	2.23%	17.25%	6.53%	3,884	47	3,377	1.15	2.23%	17.59%	6.53%	37,469	452	32,544	1.15	2.23%	17.29%	6.53%
96-Mar 96	B		135	26	24	34,335	415	29,856	1.15	2.23%	19.87%	7.88%	3,971	48	3,453	1.15	2.23%	20.22%	7.88%	38,305	462	33,264	1.15	2.23%	19.91%	7.88%
96-Jun 96	B		135	26	24	35,101	424	30,523	1.15	2.23%	22.55%	9.24%	4,060	49	3,530	1.15	2.23%	22.90%	9.24%	39,161	472	33,984	1.15	2.23%	22.58%	9.24%
97-Sep 96	**C**	Headway cut	135	26	26	35,378	427	30,764	1.15	0.79%	23.51%	7.69%	4,092	49	3,558	1.15	0.79%	23.87%	7.69%	39,470	476	34,272	1.15	0.79%	23.55%	7.69%
97-Dec 96	C		135	26	26	35,658	431	31,007	1.15	0.79%	24.49%	6.17%	4,124	50	3,586	1.15	0.79%	24.85%	6.17%	39,782	480	34,560	1.15	0.79%	24.53%	6.17%
97-Mar 97	C	West Pittsburg	135	26	26	35,939	434	31,251	1.15	0.79%	25.47%	4.67%	4,156	50	3,614	1.15	0.79%	25.81%	4.67%	40,095	484	34,848	1.15	0.79%	25.51%	4.67%
97-Jun 97	C		135	26	26	36,223	437	31,498	1.15	0.79%	26.46%	3.19%	4,189	51	3,643	1.15	0.79%	26.83%	3.19%	40,412	488	35,136	1.15	0.79%	26.50%	3.19%
98-Sep 97	C		135	26	26	36,483	441	31,724	1.15	0.72%	27.37%	3.12%	4,219	51	3,669	1.15	0.72%	27.74%	3.12%	40,702	491	35,352	1.15	0.72%	27.41%	3.12%
98-Dec 97	C		135	26	26	36,744	444	31,952	1.15	0.72%	28.28%	3.05%	4,250	51	3,695	1.15	0.72%	28.66%	3.05%	40,994	495	35,640	1.15	0.72%	28.32%	3.05%
98-Mar 98	C	Warm Springs	135	26	26	37,008	447	32,181	1.15	0.72%	29.20%	2.97%	4,280	52	3,722	1.15	0.72%	29.58%	2.97%	41,288	498	35,856	1.15	0.72%	29.24%	2.97%
98-Jun 98	C		135	26	26	37,274	450	32,412	1.15	0.72%	30.13%	2.90%	4,311	52	3,749	1.15	0.72%	30.51%	2.90%	41,584	502	36,144	1.15	0.72%	30.17%	2.90%
99-Sep 98	**D**	W. Dublin/Rdwy cut	120	30	28	37,419	452	32,538	1.15	0.39%	30.64%	2.57%	4,328	52	3,763	1.15	0.39%	31.02%	2.57%	41,746	504	36,288	1.15	0.39%	30.68%	2.57%
99-Dec 98	D		120	30	28	37,565	454	32,665	1.15	0.39%	31.15%	2.23%	4,344	52	3,778	1.15	0.39%	31.54%	2.23%	41,909	506	36,432	1.15	0.39%	31.19%	2.23%
99-Mar 99	D		120	30	28	37,711	455	32,792	1.15	0.39%	31.66%	1.90%	4,361	53	3,792	1.15	0.39%	32.04%	1.90%	42,072	508	36,576	1.15	0.39%	31.70%	1.90%
99-Jun 99	D		120	30	28	37,858	457	32,920	1.15	0.39%	32.17%	1.57%	4,378	53	3,807	1.15	0.39%	32.56%	1.57%	42,236	510	36,720	1.15	0.39%	32.21%	1.57%
00-Sep 99	D		120	30	28	38,009	459	33,051	1.15	0.40%	32.70%	1.58%	4,396	53	3,822	1.15	0.40%	33.09%	1.58%	42,405	512	36,864	1.15	0.40%	32.74%	1.58%
00-Dec 99	D		120	30	28	38,160	461	33,183	1.15	0.40%	33.23%	1.59%	4,413	53	3,838	1.15	0.40%	33.62%	1.59%	42,574	514	37,008	1.15	0.40%	33.27%	1.59%
00-Mar 00	D		120	30	28	38,313	463	33,315	1.15	0.40%	33.76%	1.60%	4,431	54	3,853	1.15	0.40%	34.15%	1.60%	42,744	516	37,152	1.15	0.40%	33.80%	1.60%
00-Jun 00	D		120	30	28	38,466	465	33,448	1.15	0.40%	34.29%	1.61%	4,449	54	3,868	1.15	0.40%	34.68%	1.61%	42,914	518	37,296	1.15	0.40%	34.33%	1.61%
01-Sep 00	D		120	30	28	38,570	466	33,539	1.15	0.27%	34.66%	1.40%	4,461	54	3,879	1.15	0.27%	35.05%	1.40%	43,030	519	37,368	1.15	0.27%	34.70%	1.40%
01-Dec 00	D		120	30	28	38,674	467	33,630	1.15	0.27%	35.02%	1.35%	4,473	54	3,889	1.15	0.27%	35.41%	1.35%	43,147	521	37,512	1.15	0.27%	35.06%	1.35%
01-Mar 01	D		120	30	28	38,779	468	33,721	1.15	0.27%	35.39%	1.22%	4,485	54	3,900	1.15	0.27%	35.78%	1.22%	43,264	522	37,584	1.15	0.27%	35.43%	1.22%
01-Jun 01	D		120	30	28	38,884	470	33,812	1.15	0.27%	35.75%	1.09%	4,497	54	3,910	1.15	0.27%	36.15%	1.09%	43,381	523	37,656	1.15	0.27%	35.79%	1.09%
02-Sep 01	D		120	30	28	39,078	472	33,981	1.15	0.50%	36.43%	1.32%	4,519	55	3,930	1.15	0.50%	36.83%	1.32%	43,598	526	37,872	1.15	0.50%	36.47%	1.32%
02-Dec 01	D		120	30	28	39,274	474	34,151	1.15	0.50%	37.11%	1.55%	4,542	55	3,950	1.15	0.50%	37.51%	1.55%	43,816	529	38,088	1.15	0.50%	37.16%	1.55%
02-Mar 02	D		120	30	28	39,470	477	34,322	1.15	0.50%	37.80%	1.78%	4,565	55	3,969	1.15	0.50%	38.20%	1.78%	44,035	531	38,232	1.15	0.50%	37.84%	1.78%
02-Jun 02	**D**	SF Airport	120	30	28	43,463	525	37,794	1.15	10.12%	51.74%	11.78%	5,027	61	4,371	1.15	10.12%	52.18%	11.78%	48,490	585	42,120	1.15	10.12%	51.79%	11.78%

TOTAL INCREMENTAL ADDITIONS TO BASE SYSTEM
PERCENT INCREASE OVER BASE SYSTEM

MAXIMUM TRANSBAT SCREENLINE
MAXIMUM SCREENLINE EASTBAY ROUTE
SYSTEM TOTAL MAXIMUM SCREENLINE

HEADWAY REDUCTION AND EXTENSIONS
FILE: C:\SRTP\FY92\SERVICE\SERVPLN3
09/18/92
*** ENTER POLICY LOAD FACTOR HERE : 1.15 ***
*** LOAD FACTORS DURING CAR REHAB : 1.15 1.15 ***

RANGE - A1..B163, HIDE COLUMNS G..AJ
TOTAL RANGE - A1..CO63

FY & QTR MONTH-ENDING	SERVICE LEVEL	EVENT AND/OR SERVICE DESCRIPTION	MINIMUM HEADWAY seconds	MAXIMUM TRAINS/HR CAPBLTY THEO	PLN'D	EXTENSION SERVICE PLAN INCREMENT: MEN STAT	+ TRAINS MILES TRACK	+ TRAINS INC	+ TRAINS CUMM	+ CARS INC	+ CARS CUMM	BASE SYSTEM INCREMENT: PEAK HOUR	BAL TO PE TRWS	TOT PEAK PD TRWS	TOT PEAK PD CARS	TOTAL INCREMENT: TRAINS ADDED	TOTAL INCREMENT: CARS ADDED	CAR BUT: MEN CARS	SYSTEM TOTAL: MILES TRACK	MAX TRAINS ONLINE	MAX CARS ONLINE	CARS IN FLEET	AVG TRAIN LEN	FLEET STATUS: OK LINE SPRG	SYC FOR RQ'T	IN SHOP FOR REHAB	XS & A'S PMS	CARS @ 1.75 (-)
90-Mar 90	Base	Actual service	180	20	17	0	0	0	0	0	0	0	0	0	0	0	0	0											
90-Jun 90	Base	Actual service	180	20	17	0	0	0	0	0	0	0	0	0	0	0	0	0											
91-Sep 90	Base	Actual service	180	20	17	0	0	0	0	0	0	0	0	0	0	0	0	0											
91-Dec 90	Base	Actual service	180	20	17	0	0	0	0	0	0	0	0	0	0	0	0	0											
91 Mar 91	Base	Actual service	180	20	17	0	0	0	0	0	0	0	0	0	0	0	0	0											
91-Jun 91	Base	Actual service	180	20	17	0	0	0	0	0	0	0	0	0	0	0	0	0											
92-Sep 91	Base	Actual service	180	20	17	0	0	0	0	0	0	0	0	0	0	0	0	0											
92-Dec 91	Base	Actual service	180	20	17	0	0	0	0	0	0	0	0	0	0	0	0	0											
92-Mar 92	Base	Actual service	180	20	17	0	0	0	0	0	0	0	0	0	0	0	0	0	34	71.5	47	417	589	8.9	47	464	0	73	33	18
92-Jun 92	*****	Actual service	180	20	17	0	0	0	0	0	0	0	(4)	(4)	(11)	(4)	(11)	0	34	71.5	43	386	589	9.0	55	441	0	73	40	34
93-Sep 92	A		180	20	17	0	0	0	0	0	0	0	0	0	4	0	4	0	34	71.5	43	395	589	9.2	56	451	0	73	40	25
93-Dec 92	A		180	20	17	0	0	0	0	0	0	0	0	0	4	0	4	0	34	71.5	43	397	589	9.2	55	452	0	73	40	23
93-Mar 93	A		180	20	17	0	0	0	0	0	0	0	0	0	4	0	4	0	34	71.5	43	400	589	9.3	55	455	0	73	40	20
93-Jun 93	A		180	20	17	0	0	0	0	0	0	0	0	0	4	0	4	0	34	71.5	43	402	589	9.3	55	457	0	73	40	18
94-Sep 93	A		180	20	17	0	0	0	0	0	0	0	0	0	4	0	4	0	34	71.5	43	406	589	9.4	55	461	0	73	40	14
94-Dec 93	A		180	20	17	0	0	0	0	0	0	0	0	0	3	0	3	0	34	71.5	43	409	589	9.5	55	464	0	73	40	11
94-Mar 94	A		180	20	17	0	0	0	0	0	0	0	0	0	4	0	4	0	34	71.5	43	413	589	9.6	55	468	0	73	40	7
94-Jun 94	A		180	20	17	0	0	0	0	0	0	0	0	0	3	0	3	0	34	71.5	43	416	589	9.7	55	471	0	73	40	4
95-Sep 94	A		180	20	17	0	0	0	0	0	0	0	0	0	4	0	4	0	34	71.5	43	420	589	9.8	55	475	0	73	40	0
95-Dec 94	*****	Headway cut	135	26	20	0	0	0	0	0	0	3	3	6	4	6	4	0	34	71.5	49	424	589	8.7	55	479	0	73	30	7
95-Mar 95	B		135	26	20	0	0	0	0	0	0	0	0	0	4	0	4	5	34	71.5	49	428	594	8.7	55	483	0	74	30	7
95-Jun 95	B		135	26	20	0	0	0	0	0	0	0	0	0	4	0	4	25	34	71.5	49	432	619	8.8	55	487	0	78	30	24
96-Sep 95	B	Wo. Concord/Colma	135	26	20	2	3.8	1	1	6	6	0	0	0	10	1	16	25	36	75.3	50	448	624	9.0	55	503	20	80	11	29
96-Dec 95	B	East Dublin	135	26	24	2	13.0	3	4	32	38	4	0	4	10	7	42	25	38	88.3	57	490	649	8.6	55	545	20	83	0	21
96-Mar 96	B		135	26	24	0	0	0	4	0	38	0	0	0	10	0	10	25	38	88.3	57	500	674	8.8	55	555	20	86	0	33
96-Jun 96	B		135	26	24	0	0	0	4	0	38	0	0	0	10	0	10	25	38	88.3	57	510	689	8.9	55	565	30	87	0	37
97-Sep 96	*****	Headway cut	135	26	26	0	0	0	4	0	38	2	2	4	4	4	4	25	38	88.3	61	514	714	8.4	55	569	30	90	0	55
97-Dec 96	C		135	26	26	0	0	0	4	0	38	0	0	0	4	0	4	25	38	88.3	61	518	739	8.5	55	573	30	92	0	74
97-Mar 97	C	West Pittsburg	135	26	26	1	4.9	2	6	12	50	0	0	0	4	2	16	25	39	93.2	63	534	764	8.5	55	589	30	95	0	80
97-Jun 97	C		135	26	26	0	0	0	6	0	50	0	0	0	4	0	4	25	39	93.2	63	538	789	8.5	55	593	30	97	0	99
97-Sep 97	C		135	26	26	0	0	0	6	0	50	0	0	0	3	0	3	20	39	93.2	63	541	809	8.6	55	596	30	99	0	114
97-Dec 97	C		135	26	26	0	0	0	6	0	50	0	0	0	4	0	4	0	39	93.2	63	545	809	8.7	55	600	30	99	0	110
98-Mar 98	C	Warm Springs	135	26	26	2	4.6	4	10	28	78	0	0	0	3	4	31	0	41	97.8	67	576	809	8.6	55	631	30	99	0	79
98-Jun 98	C		135	26	26	1	0	0	10	0	78	0	0	0	4	0	4	0	42	97.8	67	580	809	8.7	55	635	30	99	0	75
98-Sep 98	*****	W. Dublin/Hdwy cut	120	30	28	0	0	0	10	0	78	2	2	4	2	4	2	0	42	97.8	71	582	809	8.2	55	637	30	99	0	73
98-Dec 98	D		120	30	28	0	0	0	10	0	78	0	0	0	2	0	2	0	42	97.8	71	584	809	8.2	55	639	30	99	0	71
99-Mar 99	D		120	30	28	0	0	0	10	0	78	0	0	0	2	0	2	0	42	97.8	71	586	809	8.3	55	641	30	99	0	69
99-Jun 99	D		120	30	28	0	0	0	10	0	78	0	0	0	2	0	2	0	42	97.8	71	588	819	8.3	55	643	20	99	0	77
00-Sep 99	D		120	30	28	0	0	0	10	0	78	0	0	0	2	0	2	0	42	97.8	71	590	839	8.3	55	645	0	99	0	95
00-Dec 99	D		120	30	28	0	0	0	10	0	78	0	0	0	2	0	2	0	42	97.8	71	592	839	8.3	55	647	0	99	0	93
00-Mar 00	D		120	30	28	0	0	0	10	0	78	0	0	0	2	0	2	0	42	97.8	71	594	839	8.4	55	649	0	99	0	91
00-Jun 00	D		120	30	28	0	0	0	10	0	78	0	0	0	2	0	2	0	42	97.8	71	596	839	8.4	55	651	0	99	0	89
01-Sep 00	D		120	30	28	0	0	0	10	0	78	0	0	0	1	0	1	0	42	97.8	71	597	839	8.4	55	652	0	99	0	88
01-Dec 00	D		120	30	28	0	0	0	10	0	78	0	0	0	2	0	2	0	42	97.8	71	599	839	8.4	55	654	0	99	0	86
01-Mar 01	D		120	30	28	0	0	0	10	0	78	0	0	0	1	0	1	0	42	97.8	71	600	839	8.5	55	655	0	99	0	85
01-Jun 01	D		120	30	28	0	0	0	10	0	78	0	0	0	1	0	1	0	42	97.8	71	601	839	8.5	55	656	0	99	0	84
02-Sep 01	D		120	30	28	0	0	0	10	0	78	0	0	0	3	0	3	0	42	97.8	71	604	839	8.5	55	659	0	99	0	81
02 Dec 01	D		120	30	28	0	0	0	10	0	78	0	0	0	3	0	3	0	42	97.8	71	607	839	8.5	55	662	0	99	0	78
02-Mar 02	D		120	30	28	0	0	0	10	0	78	0	0	0	2	0	2	0	42	97.8	71	609	839	8.6	55	664	0	99	0	76
02-Jun 02	*****	SF Airport	120	30	28	3	5.9	4	14	46	124	0	0	0	56	4	100	0	45	103.7	75	709	839	9.5	55	764	0	99	0	(24)
TOTAL INCREMENTAL ADDITIONS TO BASE SYSTEM						11	32	14		124		11	3	14	188	28	312	250											
PERCENT INCREASE OVER BASE SYSTEM						32%	45%											42%											

BART SERVICE EXPANSION AND RET SYSTEM COMPONENTS — PAGE 6
HEADWAY REDUCTION AND EXTENSIONS — RANGE A1..CD63, HIDE G..BI
FILE: \\HIGHRIV\PP92\SERVICE\SERVPLN3 — TOTAL RANGE A1..CD63
09/18/92

*** EXCESS POLICY LOAD FACTOR HERE - 1.15 ***
*** LOAD FACTORS DURING CAR REHAB 1.15 1.15 ***

FY & QTR ENDING	MINIMUM HEADWAY SERVICE LEVEL	EVENT AND/OR SERVICE DESCRIPTION	MAXIMUM TRAINS/HR CAPACITY seconds	THEO	PLN'D	FLEET INVENTORY AND ADDITIONS BY CAR TYPE: CAB-A NEW	CAB-A TOT	WOCAB-B NEW	WOCAB-B TOT	CAB-C NEW	CAB-C TOT	CAB-WAT NEW	CAB-WAT TOT	WCAB-WAT NEW	WCAB-WAT TOT	ALL NEW	ALL CUMM. TOT	CAR STORAGE CAPACITY, SPACES AVAILABLE vs REQUIRED: w/ TC @ TARDS 100%	w/ TC @ TARDS 80%	EXT TAILTRACK 100%	EXT TAILTRACK 80%	MAX AVAIL IN w/ TC	CARS IN STOR	EXCESS/(DEF) w/ TC	EXCESS/(DEF) 56w0TC
90-Mar 90	Base	Actual service	180	20	17																				
90-Jun 90	Base	Actual service	180	20	17																				
90-Sep 90	Base	Actual service	180	20	17																				
90-Dec 90	Base	Actual service	180	20	17																				
91-Mar 91	Base	Actual service	180	20	17																				
91-Jun 91	Base	Actual service	180	20	17																				
92-Sep 91	Base	Actual service	180	20	17																				
92-Dec 91	Base	Actual service	180	20	17																				
92-Mar 92	Base	Actual service	180	20	17	0	136	0	303	0	150	0	0	0	0	0	589	651	521	0	0	521	516	5	61
92-Jun 92	**A**	Actual service	180	20	17	0	136	0	303	0	150	0	0	0	0	0	589	651	521	0	0	521	516	5	61
92-Sep 92	A		180	20	17	0	136	0	303	0	150	0	0	0	0	0	589	651	521	0	0	521	516	5	61
92-Dec 92	A		180	20	17	0	136	0	303	0	150	0	0	0	0	0	589	651	521	0	0	521	516	5	61
93-Mar 93	A		180	20	17	0	136	0	303	0	150	0	0	0	0	0	589	651	521	0	0	521	516	5	61
93-Jun 93	A		180	20	17	0	136	0	303	0	150	0	D	0	0	0	589	651	521	0	0	521	516	5	61
93-Sep 93	A		180	20	17	0	136	0	303	0	150	0	0	0	0	0	589	721	577	0	0	577	516	61	61
93-Dec 93	A		180	20	17	0	136	0	303	0	150	0	0	0	0	0	589	721	577	0	0	577	516	61	61
94-Mar 94	A		180	20	17	0	136	0	303	0	150	0	0	0	0	0	589	721	577	0	0	577	516	61	61
94-Jun 94	A		180	20	17	0	136	0	303	0	150	0	0	0	0	0	589	721	577	0	0	577	516	61	61
94-Sep 94	A		180	20	17	0	136	0	303	0	150	0	0	0	0	0	589	721	577	0	0	577	516	61	61
95-Sep 94	A		180	20	17	0	136	0	303	0	150	0	0	0	0	0	589	721	577	0	0	577	516	61	61
95-Dec 94	**B**	Headway cut	135	26	20	0	136	0	303	0	150	0	0	0	0	0	589	721	577	0	0	577	516	61	61
95-Mar 95	B		135	26	20	0	136	0	303	0	150	5	5	0	0	5	594	721	577	0	0	577	520	57	57
95-Jun 95	B		135	26	20	0	136	0	303	0	150	25	30	0	0	25	619	721	577	0	0	577	541	36	36
96-Sep 95	B	Wo. Concord/Colma	135	26	20	[20]	116	20	323	D	150	25	55	0	0	25	55	644	721	577	32	26	602	524	79	79
96-Dec 95	B	East Dublin	135	26	24	[20]	96	20	343	0	150	25	80	0	0	25	80	669	721	577	102	82	658	546	113	113
96-Mar 96	B		135	26	24	[20]	76	20	363	0	150	20	100	5	5	25	105	694	721	577	102	82	658	568	90	90
96-Jun 96	B		135	26	24	[20]	56	20	383	0	150	0	100	25	30	25	130	719	721	577	102	82	658	572	87	87
97-Sep 96	**C**	Headway cut	135	26	26	0	56	0	383	0	150	0	100	25	55	25	155	744	721	577	102	82	658	594	64	64
97-Dec 96	C		135	26	26	0	56	0	383	0	150	0	100	25	80	25	180	769	721	577	102	82	658	617	42	42
97-Mar 97	C	West Pittsburg	135	26	26	0	56	0	383	0	150	0	100	25	105	25	205	794	721	577	102	146	722	639	83	83
97-Jun 97	C		135	26	26	D	56	0	383	0	150	0	100	25	130	25	230	819	721	577	102	146	722	662	61	61
98-Sep 97	C		135	26	26	0	56	0	383	0	150	0	100	20	150	20	250	839	721	577	102	146	722	680	43	43
98-Dec 97	C		135	26	26	0	56	0	383	0	150	0	100	0	150	0	250	839	721	577	102	146	722	680	43	43
98-Mar 98	C	Warm Springs	135	26	26	0	56	0	383	0	150	0	100	0	150	0	250	839	721	577	252	202	778	680	99	99
98-Jun 98	C		135	26	26	0	56	0	383	0	150	0	100	0	150	0	250	839	721	577	252	202	778	680	99	99
99-Sep 98	**D**	W. Dublin/Hdwy cut	120	30	28	0	56	0	383	0	150	0	100	0	150	0	250	839	721	577	252	202	778	680	99	99
99-Dec 98	D		120	30	28	D	56	0	383	0	150	0	100	0	150	0	250	839	721	577	252	202	778	680	99	99
99-Mar 99	D		120	30	28	0	56	0	383	0	150	0	100	0	150	0	250	839	721	577	252	202	778	680	99	99
99-Jun 99	D		120	30	28	0	56	0	383	0	150	0	100	0	150	0	250	839	721	577	252	202	778	700	79	79
00-Sep 99	D		120	30	28	0	56	0	383	0	150	0	100	0	150	0	250	839	721	577	252	202	778	740	39	39
00-Dec 99	D		120	30	28	0	56	0	383	0	150	0	100	0	150	0	250	839	721	577	252	202	778	740	39	39
00-Mar 00	D		120	30	28	0	56	0	383	0	150	0	100	0	150	0	250	839	721	577	252	202	778	740	39	39
00-Jun 00	D		120	30	28	0	56	0	383	0	150	0	100	0	150	0	250	839	721	577	252	202	778	740	39	39
01-Sep 00	D		120	30	28	0	56	0	383	0	150	0	100	0	150	0	250	839	721	577	252	202	778	740	39	39
01-Dec 00	D		120	30	28	0	56	0	383	0	150	0	100	0	150	0	250	839	721	577	252	202	778	740	39	39
01-Mar 01	D		120	30	28	0	56	0	383	0	150	0	100	0	150	0	250	839	721	577	252	202	778	740	39	39
01-Jun 01	D		120	30	28	0	56	0	383	0	150	0	100	0	150	0	250	839	721	577	252	202	778	740	39	39
02-Sep 01	D		120	30	28	0	56	0	383	0	150	0	100	0	150	0	250	839	721	577	252	202	778	740	39	39
02-Dec 01	D		120	30	28	0	56	0	383	0	150	0	100	0	150	0	250	839	721	577	252	202	778	740	39	39
02-Mar 02	D		120	30	28	0	56	0	383	0	150	0	100	0	150	0	250	839	721	577	252	202	778	740	39	39
02-Jun 02	**D**	SF Airport	120	30	28	D	56	0	383	D	150	0	100	0	150	0	250	839	721	577	332	266	842	740	103	103
TOTAL INCREMENTAL ADDITIONS TO BASE SYSTEM						[80]		80		0		100		150		250									
PERCENT INCREASE OVER BASE SYSTEM							56		383		150		100		150		839								

APPENDIX B

FY 1993 BART PROGRAM OBJECTIVES

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FY93 PROGRAMS, ACTIVITIES & OBJECTIVES
OFFICE OF THE GENERAL COUNSEL

PROGRAM: The Office of the General Counsel interprets the law and comments on all legal matters before the District. The Office determines matters of legality and draftsmanship, conducts litigation, interprets documents, provides legal advice to the Board and staff, and selects/retains all District lawyers and other legal staff.

ACTIVITY	OBJECTIVE	PERFORMANCE MEASURE, JULY 1992
1. ***Board of Directors*** - Review all matters submitted to the Board and respond to all questions referred to the Office of the General Counsel by members of the Board.	1.A. General Counsel/Associate General Counsel attend all Board and Committee meetings. B. Provide departmental representation at all Board agenda review committees and all General Manager signing meetings.	1. Objective met.
2. ***Litigation*** - Vigorously defend the interests of the District in litigation matters handled in-house and provide clear direction and control of litigation referred to outside counsel.	2.A. Meet all court imposed deadlines. B. Develop and implement computerized litigation deadline tracking system within 180 days of installation of computer network system in Office of the General Counsel. C. Computerize outside counsel tracking system by 6-30-93.	2. Objective met.
3. ***Extensions*** - Provide timely legal review as necessary on all extension matters including contracts.	3.A. On average within 10 working days of receipt of assignment by reviewing attorney, provide written comments on: (1) 75% of construction contract reviews prior to advertising. (2) 75% of procurement contract reviews prior to advertising. (3) 75% of professional services agreements (at any stage of review). B. Complete review (approve/disapprove) on 90% of final Executive Decision Documents on average within 2 working days of receipt.	3. Obvective met.

4. *Employee Relations* - Provide accurate and timely legal advice on all Employee Relations matters including contract negotiations, arbitrations, terminations, discipline, benefit programs, etc.	4.A.	Provide an attorney for all arbitrations at which opposition is represented by counsel and at all other arbitrations as requested.	4. Objective met.
	B.	Respond to 75% of requests for legal review of Employee Relations matters on average within 21 days of receipt of assignment by the reviewing attorney.	
5. *Contracts* - Review, revise as necessary and approve non-extension contracts and agreements of all types.	5.A.	Respond to 90% of requests for review of P/C award documents on average within 5 working days of receipt by reviewing attorney.	5. Objective met.
	B.	On average within 10 working days of receipt of assignment by reviewing attorney, provide written comments on: (1) 60% of construction contract reviews prior to advertising. (2) 60% of procurement contract reviews prior to advertising. (3) 60% of professional services agreements (at any stage of review).	
6. ***General Manager and Departmental Legal Advice*** - Respond to requests for legal review and advice from the Office of the General Manager and other departments as required.	6.A.	Complete review (approve/disapprove) on 90% of final Executive Decision Documents on average within 2 working days of receipt.	6. Objective met.

FY93 PROGRAMS, ACTIVITIES, OBJECTIVES & PERFORMANCE MEASURES
FINANCE DEPARTMENT

PROGRAM I. Processing of payroll and related accounts, payment of bills and assurance of the accuracy of the general ledger; preparation of all financial reports and related documents, and monitors/revises the Financial Management System in cooperation with the Department of Information Systems.

ACTIVITY	OBJECTIVE	PERFORMANCE MEASURE: JULY 1992
1. Process hourly & salaried payrolls and related payroll accounts.	1. Prepare payroll and related checks based on union agreements and pre-established time requirements, i.e., Federal and State deadlines.	1. Payrolls and related payments were paid as scheduled.
2. Financial reporting and accounting of Government grants, and grants receivable.	2. Meet all Federal & State reporting schedule deadlines. Complete independent audit and publishing of the Districts Financial Statement no later than Sept. 30, 1992 (90 days after the close of the fiscal year).	2. Prepared year-end account reports for FY 1992; began preparing District's financial statements.
3. Coordinate, monitor and evaluate each financial management system.	3. Produce the Monthly Budget Performance Report within 10 working days.	3. Report printed and released as scheduled.
4. Processing of Districts accounts payable.	4. Maintain payment schedules and make payment within 30 days receipt of signed invoice.	4. Completed accrual entries for 1991-92 obligations; processed invoice payments to take advantage of discounts.

PROGRAM II. Collection and reporting of passenger revenue from Automatic Fare Collection (AFC) equipment in the stations, servicing AFC equipment with change, bills, and ticket stock, investment of funds, deposit and maintenance of accounts for all revenue and investment securities, and issues/maintains bonds in support of the Districts capital funding needs.

5. Invest District funds and monitor bond issues.	5. Keep interest rates equal to or greater than Fidelity State & Local Asset Management California Portfolio.	5. BART's portfolio exceeds Fidelity State & Local asset management California portfolio rate.
6. Creative Financing.	6. Implement Commercial Paper program for extension grants as they are required and needed for the extension program.	6. Final phase of Commercial Paper Program approval is expected during September.
7. Cash Handling and Collection.	7. Service 150 highly used AFC machines daily with remaining 283 to be serviced at least every third day. Maintain trun-around time between collection and deposit of revenues within 3 working days.	7. Turnaround of deposits has been achieved within three working days.

8. Accounting of cash collected; coordinate and monitor variances reported, refund of patron claims & off-site ticket sales.	8. Maintain schedule on preparing accounting reports one day after cash is collected. Providevariance and unusual activity reports on a daily basis to Maintenance and Investigative departments, maintain schedule of 3 to 5 days to process patron refund claims and processing ticket orders for off-site sale programs.	8. Accounting and Off-Site Tickets Sales reports are on schedule. Refund claims timetable exceeding the target because of large summertime activity.
9. Continue to improve the District's procedures regarding ¬ ¬revenue collection and security controls.	9. Continue the implementation of the recommendations outlined in the Deloite & Touche study of October 22,1991.	9. Treasury continues to pursue the requisition of new equipment as outlined by the Deloite & Touche study.

PROGRAM III. Administration of claims against the District, determine appropriate property and casualty coverage, and review contracts and insurance certification for compliance.

10. Administer District claims programs and review all contracts for insurance claims.	10. Process claims within 3 working days of notification and review contracts within 24 hours of receipt.	10. Claims administration is functioning within targets.

OFFICE OF THE DISTRICT SECRETARY

PROGRAM I. Support Board of Directors with all matters concerning the Board as a whole, or its individual members in compliance with all Federal and State legal and District requirements.

ACTIVITY	*OBJECTIVE*	*PERFORMANCE MEASURE, July, 1992*
1. Coordinate, produce and distribute Board and committee agenda notices and materials as legally required and/or expected/helpful for Board and staff.	1. a. Prepare Board and Committee notices, agendas, postings and other materials, per each document's deadline.	1. a. Continued compliance. Ten Board and Committee Agendas prepared for July meetings.
	b. Attend all Board and Committee meetings (staff of 2). Record detailed notes and tapes of meeting proceedings. Maintain, number and file Board Resolutions, and prepare draft of Board minutes and distribute to Board and Staff at following meeting 75% of time.	b. All meetings staffed and recorded; Board Resolutions and Minutes preparation in progress.
2. Planned/unplanned/spontaneous requests including liaison service for nine Board members. Special projects in support of Board, including preparation/production of reports and documents, research, etc., related to Board and Board members, at direction of Board or Staff.	2. a. Coordinate/prepare writing assignments as required by Directors, including: editorials, position papers, testimony, oped pieces, and correspondence. Complete within 7 days.	2. a. In progress. Deadlines met as required.
	b. Coordination/liaison between Board and District Staff including: prepare attendance sheets and expense reports, receive/deliver messages and arrange meetings. Liaison for Grand Jury and Board. Respond to Board inquiries. Meet all necessary deadlines.	b. In progress. Deadlines met as received/required.
3. As legally required, receive, coordinate, maintain, search, preserve and safeguard records for Board of Directors and the District.	3. a. Prepare certifying documents, attest to authenticity, and safeguard official records of Board action which have occurred by motion, resolution, or ordinance. Certify within 14 days, 90% of time.	3. a. In progress. Deadlines met as required.
	b. Receive all Legal Service, create and maintain index of Board actions. Maintain contract listing.	b. In progress.

ACTIVITY	*OBJECTIVE*	*PERFORMANCE MEASURE*
4. Make travel arrangements for Board of Directors and Executive Staff.	4. Prepare and coordinate all paperwork involved for air and hotel travel arrangements with traveler, agency. Complete by traveler's deadline 98% of time.	4. In progress. Deadlines met as required.
5. Coordinate, prepare and process materials for election of five directorial seats.	5. Prepare/coordinate/put forward for Board approval, Resolution setting District Elections for five Directorial seats; coordinate with Registrars and BART Legal Department. Meet legal deadlines. Prepare election results for Board of Directors and record election results with State.	5. In progress. Resolution setting District Election complete.

PROGRAM II. Contracts: Perform selected functions of contract administration according to established District procedures and practices.

6. Perform functions related to the advertising of contracts and public hearings.	6. Sign notices and arrange publication dates, process invoices and maintain files of affidavits. Meet imposed print deadline 90% of time.	6. Continued compliance; in progress.
7. Handle sale and registration of contract documents.	7. Sell documents, bid lists, planholders' lists, pre-bid conferences. Visitors' sales handled immediately, mail orders mailed same day when books available 80% of time.	7. In progress with continued compliance. Nine Proposal Contracts and two Construction Contracts opened in July.
8. Accept and open bids.	8. Receive bids for contracts and RFPs; list bidders; call time for contractors. Open and announce bids. Respond to telephone inquiries within 2 hours.	8. Continued compliance; in progress.
9. Administer official functions for award, execution, and progress milestones.	9. Write award letters; execute for District; file original change orders. Send award letters out same day as requested 95% of time.	9. In progress.

PROGRAM III. Administer and manage the District Secretary's Office to meet District and legal requirements and be in compliance with Federal, State, Legal and District requirements.

10. Administrative support to District, Board of Directors, and Staff.	10. Act as Public Hearing Office for District. Assist other departments in setting public hearings; arrange advertising, order court	10. Continued compliance; in progress.

ACTIVITY	OBJECTIVE	PERFORMANCE MEASURE
	reporters, records and process invoices. Completed as deadlines dictate.	
11. Administer, record, process, file and amend Districts Conflict of Interest Code.	11. Process, amend, record and file State of California FPPC Statements for Conflict of Interests. Meet State imposed deadlines and requirements.	11. In progress. In conjunction with Legal, beginning Amendment of Code.

FY93 PROGRAMS, ACTIVITIES, OBJECTIVES & PERFORMANCE MEASURES

OFFICE OF THE DISTRICT SECRETARY

PROGRAM I. Support Board of Directors with all matters concerning the Board as a whole, or its individual members in compliance with all Federal and State legal and District requirements.

ACTIVITY	OBJECTIVE	PERFORMANCE MEASURE, July, 1992
1. Coordinate, produce and distribute Board and committee agenda notices and materials as legally required and/or expected/helpful for Board and staff.	1. a. Prepare Board and Committee notices, agendas, postings and other materials, per each document's deadline.	1. a. Continued compliance. Ten Board and Committee Agendas prepared for July meetings.
	b. Attend all Board and Committee meetings (staff of 2). Record detailed notes and tapes of meeting proceedings. Maintain, number and file Board Resolutions, and prepare draft of Board minutes and distribute to Board and Staff at following meeting 75% of time.	b. All meetings staffed and recorded; Board Resolutions and Minutes preparation in progress.
2. Planned/unplanned/spontaneous requests including liaison service for nine Board members. Special projects in support of Board, including preparation/production of reports and documents, research, etc., related to Board and Board members, at direction of Board or Staff.	2. a. Coordinate/prepare writing assignments as required by Directors, including: editorials, position papers, testimony, oped pieces, and correspondence. Complete within 7 days.	2. a. In progress. Deadlines met as required.
	b. Coordination/liaison between Board and District Staff including: prepare attendance sheets and expense reports, receive/deliver messages and arrange meetings. Liaison for Grand Jury and Board. Respond to Board inquiries. Meet all necessary deadlines.	b. In progress. Deadlines met as received/required.
3. As legally required, receive, coordinate, maintain, search, preserve and safeguard records for Board of Directors and the District.	3. a. Prepare certifying documents, attest to authenticity, and safeguard official records of Board action which have occurred by motion, resolution, or ordinance. Certify within 14 days, 90% of time.	3. a. In progress. Deadlines met as required.
	b. Receive all Legal Service, create and maintain index of Board actions. Maintain contract listing.	b. In progress.
4. Make travel arrangements for Board of Directors and Executive Staff.	4. Prepare and coordinate all paperwork involved for air and hotel travel arrangements with traveler, agency. Complete by traveler's deadline 98% of time.	4. In progress. Deadlines met as required.

ACTIVITY	OBJECTIVE	PERFORMANCE MEASURE
5. Coordinate, prepare and process materials for election of five directorial seats.	5. Prepare/coordinate/put forward for Board approval, Resolution setting District Elections for five Directorial seats; coordinate with Registrars and BART Legal Department. Meet legal deadlines. Prepare election results for Board of Directors and record election results with State.	5. In progress. Resolution setting District Election complete.
PROGRAM II. Contracts: Perform selected functions of contract administration according to established District procedures and practices.		
6. Perform functions related to the advertising of contracts and public hearings.	6. Sign notices and arrange publication dates, process invoices and maintain files of affidavits. Meet imposed print deadline 90% of time.	6. Continued compliance; in progress.
7. Handle sale and registration of contract documents.	7. Sell documents, bid lists, planholders' lists, pre-bid conferences. Visitors' sales handled immediately, mail orders mailed same day when books available 80% of time.	7. In progress with continued compliance. Nine Proposal Contracts and two Construction Contracts opened in July.
8. Accept and open bids.	8. Receive bids for contracts and RFPs; list bidders; call time for contractors. Open and announce bids. Respond to telephone inquiries within 2 hours.	8. Continued compliance; in progress.
9. Administer official functions for award, execution, and progress milestones.	9. Write award letters; execute for District; file original change orders. Send award letters out same day as requested 95% of time.	9. In progress.
PROGRAM III. Administer and manage the District Secretary's Office to meet District and legal requirements and be in compliance with Federal, State, Legal and District requirements.		
10. Administrative support to District, Board of Directors, and Staff.	10. Act as Public Hearing Office for District. Assist other departments in setting public hearings; arrange advertising, order court reporters, records and process invoices. Completed as deadlines dictate.	10. Continued compliance; in progress.
11. Administer, record, process, file and amend Districts Conflict of Interest Code.	11. Process, amend, record and file State of California FPPC Statements for Conflict of Interests. Meet State imposed deadlines and requirements.	11. In progress. In conjunction with Legal, beginning Amendment of Code.

FY 93 PROGRAM OBJECTIVES

TRAINING AND DEVELOPMENT

PROGRAM 1. Plan and implement programs and activities designed to develop the District's general employee population and to strengthen and maintain a high quality of management and supervisory practices in the District.

ACTIVITY	OBJECTIVE	MEASURE
1. Orient new employees and update incumbent employees on organizational changes.	1. Conduct a new hire orientation class monthly and provide supplemental orientation to 1200 incumbent employees.	1. Conducted New Hire Orientation class. Supplemental Orientation scheduled to start in September.
2. Conduct development workshops for newly appointed and incumbent supervisors.	2. Conduct a 40-hour course for all newly appointed supervisors and a 16-hour course for all incumbent supervisors.	2. New Supervisor course conducted this month. Incumbent Supervisor training to start in September.
3. Provide management development workshops and seminars.	3. Conduct three management forums and provide for selected external seminars.	3. No activity this month.
4. Conduct training courses for the general employee population and administer Educational Assistance Program.	4. Provide 800 student hours of instruction.	4. 128 student hours of instruction provided YTD. Objective met.
5. Implement a Career Development Program.	5. Conduct Career Planning Workshop quarterly.	5. Scheduled for September.
PROGRAM 2. Provide audio/visual support for the District's training and safety programs.		
6. Produce audio/visual programs with a focus on training and safety.	6. Produce 11 audio/visual programs with a good or better client satisfaction rating.	6. 2 programs in production.

FY 93 PROGRAM OBJECTIVES

TRAINING AND DEVELOPMENT

PROGRAM 3. Administer District-wide programs designed to recognize and reward exemplary employee performance.

7. Administer Employee Recognition Programs.	7. Conduct quarterly service recognition luncheons, annual retiree dinner, and administer the Employee Suggestion Program and Service Award Program.	7. Projects on schedule.
8. Administer the District's Excellent Attendance Program.	8. Distribute Excellent Attendance Awards monthly and the 5-year Excellent Attendance Award annually.	8. Objective not met. Scheduled for September.

FY 93 PROGRAM OBJECTIVES

EMPLOYEE RELATIONS

PROGRAM 1. Improve and maintain equitable, harmonious, and responsible labor/management relations through labor contract negotiation, interpretation and administration, including advocacy, management consultation, and related support services.

ACTIVITY	OBJECTIVE	MEASURE, JULY 1992
1. Strategize, develop, and advocate cases representing the District's position in formal, informal, and panel arbitrations resulting from disciplinary appeals and contract interpretation disputes.	1. Maintain a 75% rate of favorable rulings in formal, informal and panel arbitrations advocated by Labor Relations.	1. Measured as an absolute did/did not accomplish objective on an annual basis. Will report goal achievement to date on a quarterly basis.
2. Provide expert professional assistance to District managers/ supervisors regarding issues governed by the collective bargaining agreements including disciplinary and grievance matters.	2. Reduce the active grievances, at the Employee Relations level, filed in FY 92 by 50% and facilitate the reduction of grievances in Operations by 30%.	2. Measured as an absolute did/did not make objective on an annual basis. Will report goal achievement to date on a quarterly basis.

PROGRAM 2. Seek, attract and retain highly qualified candidates for all District positions, and streamline selection and promotion practices and procedures to facilitate the timely filling of vacancies. Maintain compliance with state and federal equal employment opportunity laws and regulations, labor contract obligations, District affirmative action goals and internal management procedures.

ACTIVITY	OBJECTIVE	MEASURE
3. Prepare job announcements for applicable requisitions, screen bids, applications and forward qualified candidates to the hiring department for employment consideration; respond to candidates and maintain associated records.	3. Maintain an average of 60 approved requisitioned vacancies during the fiscal year.	3. Goal achieved 1 month out of 1 month.

PROGRAM 3: Pursuant to the requirements of the Worker's Compensation laws of California, the requirements of the Americans with Disabilities Act, the Rehabilitation Act of 1973 and the BART Labor agreements, administer and coordinate the provisions of a comprehensive disability leave program, Return to Work and Temporary Modified Assignment programs.

ACTIVITY	OBJECTIVE	MEASURE
4. Administer the District's Modified Assignment Program for temporarily disabled employees in accordance with the negotiated labor agreements.	4.a. Return disabled employees to work in a temporary modified assignment within two (2) weeks of medical release, where such can be accommodated without creating an undue hardship on the District.	4.a. The goal was met. 8 out of 8 disabled employees were placed on temporary modified assignments within the goal limit.
	b. Reduce District-wide line item expenditures for non-productive workers' compensation and short-term disability costs by $250,000 through providing temporary modified or alternate assignments to a minimum of sixty (60) temporarily disabled employees in order to enable them to return them to work.	b. Measured annually on the basis of cost savings achieved vs. cost savings expected and as an absolute did/did not accomplish objective on an annual basis.

PROGRAM 4: Administer a comprehensive Employee Assistance Program, including a Substance Abuse Program, in compliance with the Drug Free Workplace Act of 1988, new legislation mandating random drug/alcohol testing and labor agreements, designed to increase employee and public safety, minimize employee time off work and increase overall employee productivity.

ACTIVITY	OBJECTIVE	MEASURE
5. Coordinate pre-employment, reasonable cause and post-accident drug testing in accordance with the Substance Abuse Program and the Drug Free Workplace Act.	5. Track and report the outcome of 90% of pre-employment drug tests to Employment within five (5) working days of test.	5. The goal was met. 7 out of 7 pre-employment test results were reported within goal limit.
6. Develop and implement procedures for random drug and alcohol testing for safety sensitive employees, in compliance with Department of Transportation and Federal Transit Authority regulations.	6. Conduct computer selected random drug and alcohol tests of 50% of safety sensitive employees during the first full year of implementation of the random testing program.	6. Not applicable at this time. Random drug testing program not yet established. Measured on the basis of objective accomplished or not accomplished.

PROGRAM 5: Administer and evaluate personnel support programs and activities assigned to the Personnel Services Division.

ACTIVITY	OBJECTIVE	MEASURE
7. Research and implement new programs in support of District's goals and objectives as related to human resources management.	7. Implement at least one (1) new program by the end of the fiscal year.	7. Measured as an absolute did/did not make objective on an annual basis.
8. Monitor the Temporary Help contract to ensure compliance with the terms and conditions of the Agreement and District procedures.	8. Conduct quarterly on-site audits of records, issue reports and implement corrective actions as necessary.	8. Measured as an absolute did/did not accomplish objective on a quarterly basis.

PROGRAM 6: Administer and coordinate the District's fringe benefits programs ensuring compliance with the Labor Agreements and applicable State and Federal laws.

ACTIVITY	OBJECTIVE	MEASURE
9. Administer the District's fringe benefits plans pursuant to the BART Labor agreements including the medical, dental, vision, self-funded indemnity plans, the four health maintenance organizations as well as the retirement and life insurance programs.	9. Assess the feasability of establishing a full-flex (cafeteria) plan and prepare a recommendation by 12/31/92 as to whether such a plan should be implemented.	9. Measured on the basis of objective accomplished or not accomplished.

PROGRAM 7: Maintain a sound and comprehensive job classification system which is used as the basis to determine appropriate compensation, recruitment, and selection strategies, job performance evaluation criteria and employee development and training needs.

ACTIVITY	OBJECTIVE	MEASURE
10. Conduct job classification studies to assist District management in structuring and/or reorganizing functions and responsibilities to better meet District goals and objectives.	10. Prepare and submit quarterly audit status reports to senior management within ten (10) working days after the end of the quarter to assist in establishing District priorities.	10. Measured as an absolute did/did not accomplish objective on a quarterly basis.

FY93 PROGRAMS, ACTIVITIES & OBJECTIVES

INFORMATION TECHNOLOGY

GRAM 1: Develop a distributed Fund Grant Project Tracking and Management System which will provide management with comprehensive financial information used in decision making for Extensions and Operations.

ACTIVITIES		OBJECTIVES		PERFORMANCE MEASURE, JULY
Develop and install mainframe and microcomputer applications for the Financial Management System (FMS).	1.	Financial Management development and installation will be complete by April 30, 1993.	1.	Goal met. Installation on schedule at this time. ** *Goal met or exceeded 1 of 1 months.* **
Define needs and install productivity software & hardware which support the efficient and effective recording, monitoring and reporting of FMS information.	2.	Productivity software and hardware will be installed by October 1, 1993.	2.	Goal met. Installation on schedule at this time. ** *Goal met or exceeded 1 of 1 months.* **

GRAM 2: Direct the planning of technology toward containing costs and enhancing employee productivity through reengineering projects. Maintain the District's Long Range Information Technology Plan (LRITP).

Reengineer and recommend solutions for implementation of agreed upon candidate projects. Update the Long Range Information Technology Plan (LRITP) annually.	3.	Develop and maintain reengineering project schedules and milestones to track progress via monthly reports. Prepare an update report of the LRITP annually by January 1, 1993.	3.	Goal Met. Project on schedule at this time. ** *Goal met or exceeded 1 of 1 months.* **

GRAM 3: Provide a central administration computer data center on a 24 hour a day / 7 day a week access to all District computer users.

Operate data center to ensure availability of mainframe and network computing equipment. Complete all application processing per established schedules.	4.	Terminals, equipment and centrally processed applications will be available to users on schedule 97% of the time.	4.	Goal exceeded. Hardware and centrally processed applications were available 98.25% of the time. ** *Goal met or exceeded 1 of 1 months.* **

GRAM 4: Provide the mainframe computer software necessary to support the District's information needs.

Install, test and implement general support software required for effective hardware operation. Research, test and process all vendor supplied enhancements to installed application packages.	5.	Maintain 98% production mainframe computer system availability for program processing. Complete enhancements within agreed upon schedule 98% of the time.	5.	Goal exceeded. The computer and applications were available 98.9% of the time and eight of eight changes were completed on time. Completion rate = 98.9% and 100% ** *Goal met or exceeded 1 of 1 months.* **
Provide technical expertise for mainframe connectivity and system performance monitoring.	6.	Respond to all inquiries within one business day. On-line software systems will be available to District users 95% of the time.	6.	Goal exceeded. On line systems were available 716 out of 720 hours. Goal completion rate = 99.4% ** *Goal met or exceeded 1 of 1 months.* **
Research and/or develop automated solutions for District business needs utilizing existing development tools and methodologies.	7.	Complete programming projects within agreed upon schedules 95% of the time.	7.	Goal exceeded. Completed 27 of 28 projects within goal limits. Goal completion rate = 96.4% ** *Goal met or exceeded 1 of 1 months.* **

GRAM 5: Control and support the District's computing assets, provide computer application development and implement computer training to the District.

Provide Help Desk support to maintain the District's personal computers and Local Area Networks and respond to software requests.	8.	Contact users reporting a problem within 4 hours of request. 75% of logged requests will be responded to within 8 working hours and 95% within 16 working hours.	8.	Goal met. 100% of the calls were responded to within the goal limits. ** *Goal met or exceeded 1 of 1 months.* **

ACTIVITIES		OBJECTIVES		MEASURE
Provide end user software support by installing commercially available PC packages and/or developing new applications.	9.	Recommanded software solution produces 90% of users specified information requirements. This will be accomplished 90% of the time.	9.	Goal met. 100% of the solutions were within goal limits. ** *Goal met or exceeded 1 of 1 months.* **
Improve employee effectiveness through computer training.	10.	Provide 10 computer training classes for District users each month.	10.	Goal met. Electronic Mail and Local Area Network classes were taught. ** *Goal met or exceeded 1 of 1 months.* **

RAM 6: Administer computer system security to protect District confidential information from deliberate or accidental unauthorized disclosure, use, modification or destruction.

Administer Resource Access Control Facility (RACF) to protect all mainframe computer files and confidential information. Provide ongoing control and enforcement of the District's computer security policy and procedures.	11.	Mainframe applications will have first level RACF security installed by 06/31/93. Violators of policy and procedures will be notified within 5 business days and reinstructed.	11.	Goal on target. RCAF security was installed to protect PPRE and PSEC (high level Human Resources System CICS Allscreen Transactions). ** *Goal met or exceeded 1 of 1 months.* **

PROCUREMENT DEPARTMENT

PROGRAM I. Purchase all inventory and non-inventory goods and services based on maintenance, repair and operating requirements by the Purchasing Division of the Procurement Department.

ACTIVITY	OBJECTIVE	PERFORMANCE MEASURE, JULY
1. Purchase all goods and services within established procedures, laws and regulations in a timely manner and at the most favorable price. Ensure that all documents are in conformity to reduce the potential for protest. Develop use of Multi-Year agreements and procurements to provide for the needs of the District.	1. a. Process advertised purchase requisitions over $50K within 52 working days of receipt. b. Process advertised purchase requisitions more than $25K but less than $50K within 40 working days of receipt. c. Process advertised purchase requisitions and re-order notices under $25K within 30 days of receipt. d. Track and identify the nature of all protests sumitted to the District. Reduce the number of protests based on defective specs. by 50%. Limit protests based on District's procurement process or District's discretionary actions to no more than 5% of awards. e. Issue at least 852 purchase orders on a monthly basis. f. Increase the number of annual recurring purchase requirements to multi-year purchase orders, agreements and contracts issued by the Purchasing and Contract Management Divisions from 40% to 60% by 6/30/93.	1.(a-c) GOAL WAS MET FOR ALL REQS. THIS MONTH. > $50K; 04 for 04 P.O.'s is 100% < $50K; 04 for 04 P.O.'s is 100% < $25K; 13 for 13 P.O.'s is 100% 1.(d) GOAL WAS MET THIS MTH. 100% of goal achieved 1.(e) GOAL WAS MET THIS MTH. 106% of goal achieved. 1.(f) GOAL WAS MET THIS MTH. FOR PURCHASING. 80% Achieved. 1.(f) GOAL WAS NOT MET THIS MTH. FOR CONTRACT MGT. 0% Achieved
2. Ensure that purchases are made in conformity with the District's DBE affirmative action goals.	2. Achieve at least 25% DBE participation in all purchasing activities.	2. GOAL WAS MET THIS MTH. FOR PURCHASING 26.59% DBE Participation

PROGRAM II. Provide contract management support to Operating Departments in the development and administration of construction, installation, procurement contracts and professional services agreements by the Operating Contract Management section of the Procurement Department.

3. Develop contract documents and procurement materials in cooperation with sponsoring departments and obtain District concurrences. Ensure that such documents are in conformity to reduce the potential for protests and claims.	3. a. Process advertised agreements and contracts in excess of $50K to award within 52 working days of receipt in 95% of all cases. b. Limit rebids to no more than 3% of the nonextensions contracts advertised. c. Limit Protest and claims to no more than 5% of the non-extensions contracts advertised. d. Track and identify the nature of all protests submitted to the District. Reduce the number of protests based on defective specifications by 50%. Limit protests based on District's procurement process or District's discretionary actions to no more than 5% of awards. e. Meet all schedule deliveries of District furnished materials to contrators.	3.(a) GOAL WAS MET THIS MTH. 2 for 2 Contracts > $50K or 100% 3.(b) GOAL WAS MET THIS MTH. 0% REBIDS 3.(c) GOAL WAS NOT MET THIS MTH. 7% PROTESTS 3.(d) GOAL WAS NOT MET THIS MTH. 7% CONTRACTS PROTESTED 3.(e) GOAL WAS NOT MET THIS MTH. 0 for 0 deliveries N/A
4. Ensure that contracting activity is carried out in conformity with the District's affirmative action goals.	4. Achieve at least 21% DBE particpation in all contracting activities.	4. GOAL WAS MET FOR CONTRACT MANAGEMENT 34% DBE Participation

PROGRAM III. ***Extension Contract Mgmt. Section of the Procurement Dept. delivers contract management and procurement support to the Development Department for the extensions program in the development and administration of construction, installation, equipment procurement and professional services agreements.***

5. Ensure that construction and procurement contracts are developed in accordance with procedures established by Development.	5. Review procurement and construction contract materials submitted by Development for concurrance within 14 calendar days of reciept from the project manager.	5. GOAL WAS MET THIS MTH. 100% Goal Achieved

6. Ensure that Development Department contracting and procurement activity is carried out in conformity with the District's DBE affirmative goals.	6. Achieve at least 30% DBE participation in all Extension procurement activities.	6. GOAL WAS NOT MET THIS MTH. 22% Goal Achieved

PROGRAM IV. ***The Inventory & Stores Div. of the Procurement Dept. provides efficient materials management support and safe secure inventory storage facilities for the District's $35 million inventory of parts, supplies, consumable and repairable components.***

7. Provide efficient and responsive materials management and inventory support to the operating departments.	7. Maintain adequate parts in inventory to limit cars out of service awaiting parts to 1.5% of the total vehicle fleet.	7. GOAL WAS MET THIS MTH. 100% Goal Achieved

FY 93 PROGRAM OBJECTIVES

REAL ESTATE

PROGRAM 1. Add long term value to District Property by securing private development on, and encouraging Development around, District property in accordance with Board policy.

ACTIVITY	OBJECTIVE	MEASURE
1. Consolidation of BART Administration Offices.	1. Secure consultant, execute agreement with owner/developer by 1/93.	1. MILESTONES HAVE BEEN COMPLETED. PROJECT IS/IS NOT ON SCHEDULE. AGREEMENT IS EXECUTED.
2. Secure telecommunications partner to generate revenue from use of BART Right of Way.	2. Secure telecommunications partner by 4/93 and execute 3rd party agreement by 6/93.	2. MILESTONES COMPLETED. IS PROJECT ON SCHEDULE. AGREEMENT IS EXECUTED.
3. Conduct market feasibility and site planning analyses to release Request for Proposals for private development at BART stations.	3. Prepare two private development Requests for Proposals based upon study results by 6/93.	3. MILESTONES COMPLETED. IS PROJECT ON SCHEDULE. DID OR DID NOT ISSUE RFP.
4. Secure new station area pay telephone contract with private sector.	4. Solicit proposals and execute agreement by 12/92; increase pay phone revenue by $41,500 by 6/93.	4. MILESTONES COMPLETED. IS PROJECT ON SCHEDULE. DID OR DID NOT MAKE OBJECTIVE.

PROGRAM 2. Support Extensions activities and other BART Real Estate needs through appraisal, acquisition, relocation, property management, right of way certification, acquisitions leasing, and assisting in preparation of environmental impact documents, engineering drawings and management of consultants.

5. Appraise and acquire property for BART extensions and other BART projects.	5. Appraise and acquire 30 properties and relocate occupants.	4. % OF PARCELS APPRAISED. % OF OCCUPANTS RELOCATED VS NO. ON ACQUIRED PROPERTY.
6. Provide Right of Way Certification for BART extensions and other BART projects.	6. Provide ROW certification within 10 working days of receipt of required documentation.	6. % OF CERTIFICATIONS PROVIDED WITHIN 10 DAY DEADLINE VERSUS TOTAL SUBMITTALS.

PROGRAM 3. Protect and enhance BART's real property assets through sound property management practices, the sale of excess land, and management of revenue leases and concessions in accordance with Board policies and State and Federal law. Monitor and control the impact of development across or around BART property through permits and contractual agreement.

7. Manage BART office facility services: moving, space allocation, phones, utilities.	7. Respond to department requests for services within 3 working days.	7. % OF REQUESTS RESPONDED TO WITHIN 3 DAYS.
8. Manage revenue leases, concessions and acquisition leases.	8. Maintain annual lease revenue of $360,000; concession revenue of $850,000; delinquency rate of 5% or less. Inspect all leased properties and concessions for compliance with terms.	8. ACTUAL REVENUE GENERATED YEAR TO DATE VERSUS ANNUAL GOAL.
9. Generate income from sale or lease of excess land.	9. Present updated excess land list to Board by 12/92; generate $500,000 from sale/lease of land by 6/93.	9. MILESTONES ACCOMPLISHED. IS PROJECT ON SCHEDULE. ACTUAL REVENUE VS. OBJECTIVE.
10. Develop a fee system to charge outside agencies and developers for permits, plan reviews and construction monitoring.	10. Implement permit fee program by 1/93. Generate $25,000 in revenue in FY 93.	10. MILESTONES ACCOMPLISHED. IS PROJECT ON SCHEDULE. ACTUAL REVENUE VS. OBJECTIVE.
11. Initiate formal competition for concession opportunities.	11. Revise current Policy and get Board approval by 9/92; conduct competition for permits at minimum of 7 stations.	11. MILESTONES ACCOMPLISHED. IS PROJECT ON SCHEDULE.

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FY93 PROGRAMS, ACTIVITIES, OBJECTIVES & PERFORMANCE MEASURES

AFFIRMATIVE ACTION

PROGRAM I. & II. DBE - DISTRICT & EXTENSION PROGRAM. Ensure Disadvantaged Business Enterprise (DBE) including minority and woman owned business are afforded the maximum practical opportunity to participate in performance of all District's contracts, agreements, including but not limited to construction, service agreements, purchase orders, professional and technical services.

ACTIVITY	OBJECTIVE	PERFORMANCE MEASURE,JULY
1. Conduct DBE outreach and provide technical assistance.	1. a. Sponsor one trade fair for DBE's, for District and Extensions. b. Provide technical assistance as needed.	1.a. Goal not met. b. Goal not met.
2. Conduct DBE certification, including site visit.	2. a. Complete DBE certifications for prime, subcontractors and suppliers who are bidding contracts within 10 workdays after application and all supporting documents received.	2.a. Goal met on 3 applications which were contract related.
3. Conduct DBE contract compliance, including subcontract analysis, goal setting, participation evaluation, good faith efforts hearing, field monitoring and reporting, etc. Contract goals are set to achieve District overall goal of 21%.	3. a. Complete contract analysis and DBE goal-setting within 10 workdays upon receipt of contract information. b. Expand RTA's DBE directory entries by certifying and adding 500 or more firms for District and Extensions projects.	3.a. Goal met. 18 District contracts were received and processed within the 10 day period. One Extensions contract was completed and returned within the 10 days. b. Goal not met. 32 certifications to RTA, 28 denials, 34 new applications received.

PROGRAM III. EEO/AA PROGRAMS. Administer the District Equal Employment Opportunity (EEO) Affirmative Action (AA) Program; recommend policies and monitor the program; set goals, establish procedures; provide assistance to departments and report progress.

4. Implement and administer EEO/AA programs for minorities and women, Americans with Disabilities Act and Title VI compliance and reporting.	4. a. Develop District's five-year goal by December 31, 1992. b. Update District's comprehensive AA Program, and FY 93 position goals by Department Executive Office by August 1, 1992.	4.a. Goal on target. Customized software program continued this month. b. Goals by Executive Office updated prior to 8/1/92. c. Submission required next month. Report 80% complete.

	c. Submit Title VI assessment report to Federal Transit Administration by August 31, 1992.	
5. Conduct outreach, recruitment and community relations projects. Administer and coordinate EEO/AA related training.	5. a. Conduct summer youth program for 100 youth in FY 1993. b. Schedule and conduct/coordinate Sexual Harassment training for District's total management staff, and for employees. (multi-year plan) c. Identify 5 to 10 target positions, develop and coordinate career enhancement and upward-mobility programs for all employees especially for women and minorities. d. Identify 5 target positions for employment of qualified disabled people.	5.a. Goal met. 142 youth participated in program b. New Hire Orientation held 7/8/92 for 6 employees included sexual harassment training c. Scheduled for September 1992. d. Scheduled for September 1992.
PROGRAM IV. COMPLAINT HANDLING AND PREVENTION.		
6. Report, counsel and investigate internal employee discrimination complaints.	6. Respond to all complaints in seven (7) days of receipt, and resolve or initiate full scale investigation within thirty (30) days.	6. Seven new complaints were filed this month. All seven were responded to within seven days of receipt. Five of these cases were resolved and full scale investigations were initiated within thirty days for the remaining two cases.
7. Investigate and respond to discrimination complaints received from external EEO enforcement agencies.	7. Respond to each charge within the designated and agreed time frame.	7. No new complaints of discrimination have been received this month from external EEO enforcement agencies.

ADMINISTRATIVE SERVICES

:TIVITY	MEASURE	PROGRAM PERFORMANCE JULY, 1992
Office Services	Office Services	Office Services
a. Direct purchase & lease of ofc. equipment & supplies as requested.	1a. Provide ofc. supplies & equipment within 10 days after receipt of request.	1a. This goal is being met. Fifteen requests were received in July, 1992.
b. Standardize ofc. equipment & capitalize copy acquisition.	1b. Plan for standardizing ofc. equipment will be developed by 9-15-92 & implementation to begin by 11-30-92.	1b. This goal is being met. Plan will be developed by target date & implementation will be accomplished by 11-30-92.
c. Shift copy machine acquisition from operating to capital budget.	1c. Capitalization of copy machine acquisition to be completed by 8-31-92.	1c. This goal will not be met by 8-31-92. Proposals were rejected; goal will be met by 10-15-92.
a. Sort, deliver & pick up mail.	2a. Deliver & pick up mail daily to & from 14 BART locations.	2a. This goal is being met.
b. Prioritize mail delivery.	2b. Complete investigation & report on mail delivery prioritization by 11-30-92.	2b. This goal will be met.
Records and Forms	Records and Forms	Records and Forms
. Store & retrieve vital records as requested.	3. Store about 1,400 new boxes per year & retrieve 300 boxes per year.	3. This goal is being exceeded. In July 230 boxes were stored & 62 boxes were retrieved.

Revise records management procedure & develop a plan for records retention & destruction.	4. Issue revised records procedure by 9-30-92 & implement plan by 11-30-92.	4. This goal is being met.
Provide xerographic & offset copy & printing services to BART Departments.	5. Print & xerograph 7 million impressions per year, including forms.	5. This goal is being met. During July, 1992, 1,257,975 impressions were printed & duplicated.
Centralize the design & printing of District Business forms.	6. Reduce "outside" printing FY93 budget by $100,000.	6. The goal was not met this month. Savings was $6,800 in July.
Administration	Administration	Adminisration
Process legal documents such as subpoenas, interrogatories, complaints & direct Department Administration.	7. Respond to approximately 200 legal documents per year.	7. This goal is exceeded or July, 1992. Thirty nine documents were processed.
Filing, typing, retrieving contracts & agreements, make travel arrangements, issue vehicles & prepare periodic reports.	8. Within 8 hrs. after each request is received, complete approximately 100 travel requests within one year. Confirm vehicle assignments 1 hr. after request is made.	8. This goal is exceeded. 15 requests were completed in July, 1992. All were completed in the time frame set. Vehicle assignment goals were met also.

FY93 PROGRAMS, ACTIVITIES, OBJECTIVES & PERFORMANCE MEASURES

MARKETING, MEDIA AND CUSTOMER RELATIONS

ACTIVITY	MEASURE	PROGRAM PERFORMANCE, July, 1992
1. Marketing - Support budgeted ridership projections with six Marketing programs.	1. Achieve average weekday ridership of 252,455 or better, 107,029 for Saturday, and 67,200 for Sundays, for a total projection of 73,346,100.	1. Overall ridership exceeded budget forecast by 1.1%. Saturdays were 6.3% below forecast and Sundays were 3.6% above forecast.
2. Sponsor critical new research.	2. Carry out research program in conjunction with planning.	2. A passenger profile survey is planned for the Fall of '92 in partnership with Planning.
3. Develop new 5-year Marketing Plan.	3. Produce Marketing Plan by June 1993.	3. An outline is in the development stages. Research will be a major building block.
4. Develop Rehabilitation Marketing Plan.	4. Complete key element of plan including video and slide presentations, and supporting collateral material.	4. Draft plan has been completed.
5. Enhance School Information Program.	5. Produce new revised edition of BART School Workbook containing special Environmental Section and Teacher's Field Guide.	5. Revision is in the draft stage.
6. Improve dissemination of information to customers.	6. Consolidate key brochures from eleven to six and produce 3,585,000 throughout 1993.	6. "All About BART" will be consolidated with schedule brochure. Design work is in progress.
7. Develop In-station Art Program.	7. Recommendation to Board by January 1993.	7. Have had initial discussions with members of art community and Market Street Art in Transit.
8. Inform passengers of new development and programs.	8. Produce at least 12 "Dear Rider" letters on news of immediate interest. Publish seven (bi-monthly) letters, including one special Christmas issue.	8. A "Dear Rider" letter giving patrons a status report on the new schedules was distributed.

PLANNING

PROGRAM I. Develop and implement a comprehensive BART Station Access Program.

ACTIVITY	OBJECTIVE	PERFORMANCE MEASURE, July, 1992
1. Develop a plan for improved access to BART stations.	1. Implement a plan for more intensive use of existing and planned access facilities at the BART Concord, Walnut Creek, Orinda and Lafayette Stations; plan for new parking and/or intermodal facilities at El Cerrito and Daly City Stations.	1. Staff hired to coordinate this program.
2. Achieve District compliance with the Clean Air Act.	2. Develop a BART Clean Air Program including employer outreach and a TDM Plan to reduce VMT by BART employees.	2. Staff hired whose duties are, in part, to coordinate this program.

PROGRAM II. Prepare and implement projects and plans required by the Americans with Disabilities Act (ADA).

3. Develop and implement plans required by the Americans with Disabilities Act (ADA).	3. Complete first year milestones of the BART Comprehensive Paratransit Service Plan (CPSP); develop a joint CPSP with Eastbay transit operators; review all BART extension facilities designs for ADA compliance; implement the BART Key Station Plan.	3. The Joint ADA Plan Advisory Committee and BART Task Force met to review preliminary recommendations on eligibility and joint transit operator paratransit service arrangements.

PROGRAM III. Produce the annual update of the BART Short Range Transit Plan (SRTP) and related reports and documents required by MTC and FTA in support of successful grant applications. Develop plans for new bus and rail service. Complete a BART Fare Policy Analysis.

4. Conduct a BART Fare Policy Analysis.	4. Assess alternative modifications to BART fare policy designed to improve competitiveness and equity, and address revenue requirements; present report of findings by April 1, 1993.	4. Recruitment of staff for this project commenced.

PLANNING (Continued)

PLANNING (Continued)

5. Update the BART Short Range Transit Plan (SRTP).	5. Complete the 1992 SRTP by September 15, 1992; prepare the draft 1993 SRTP update by June 30, 1993; carry out and/or prepare all reports, agreements and liaison with other agencies as required by MTC.	5. Following Board authorization to release the draft on July 14, the document was distributed internally and to outside concerns during the latter half of July. A press release was also issued announcing the document's availability at local libraries.
6. Complete detailed plans for new service adjustments.	6. Evaluate new rail service options in the Eastbay Southern Pacific RR corridor; update BART Express Bus Service and prepare a plan for future service changes as BART rail extensions become operational.	6. Staff participated in preliminary evaluation of Eastbay rail service in Southern Pacific RR corridor.
PROGRAM IV. Prepare a BART Strategic Sketch Plan.		
7. Prepare a BART Strategic Sketch Plan.	7. Complete the initial BART Strategic Sketch Plan including the following program areas (access, land use, new rail corridors, ridership growth/new service levels, ADA impact, Clean Air Act impact, relationship to other governmental agencies, new business opportunities, new fund sources, intermodal coordination) by June 30, 1993.	7. Interviews conducted to fill vacant staff position. Orientation program developed.
8. Perform essential BART market research studies.	8. Conduct the 1992 BART Passenger Profile Survey; assess the ridership impacts of three completed BART initiatives.	8. Offer made to fill vacant position. Survey methodology developed. Comments on questionnaire solicited.
PROGRAM V. Manage the compilation, analysis and reporting of all BART patronage, rail passenger revenue and train performance data acquired from the Data Acquisition System (DAS) and the Passenger Flow Model (PFM).		
9. Perform essential BART data management functions.	9. Compile, analyze and report BART patronage, passenger revenue and patron on-time statistics; maintain and enhance the reporting capabilities of the BART Data Acquisition System (DAS) and Passenger Flow Model (PFM) system; respond as needed to requests for BART patronage and other data.	9. Monthly reports were completed. A contractor commenced work on need enhancements to the PFM system software.

GOVERNMENT & COMMUNITY RELATIONS

PROGRAM I. Secure funding for the District's Capital Improvement Program (CIP) projects from federal, state and local revenue sources.

ACTIVITY	OBJECTIVE	PROGRAM PERFORMANCE, July, 1992
1. Prepare and submit BART's federal capital programming request to MTC by January 15, 1993.	1. Secure federal funds for district projects.	1. In progress.
2. Advocate funding for BART projects at minimum of 35 meetings of federal, state, county, and MTC funding partners.	2. Regular advocacy for BART projects at all levels increases chances of securing scarce resources.	2. Staff attended 23 meetings with external agencies regarding funding issues.
3. Prepare/submit > 27 funding applications/ instruments. Provide documents to CTC and Caltrans for allocations, SB 2800, and SB 580 reviews; negotiate and execute Fund Transfer Agreements, REAs, LONPs, grant contracts and appeals.	3. Necessary and essential part of process, without which district doesn't get funds.	3. Work is progressing on federal application grants for the Extensions.
4. Prepare and update quarterly, a cashflow analysis and commitment schedule for extensions.	4. As required by funding partners.	4. In progress.
5. Secure reimbursement authority from funding partners ACTA and CCTA.	5. Agreements must be executed before district can receive Measure B and C funds for Extensions.	5. Staff work completed on $178 million CCTA cooperative agreement. GM signature pending.

PROGRAM II. Participate in the development of Congestion Management Program (CMP) with each of three BART county Congestion Management Agencies.

6. Participate in monthly CMA meetings, technical and regional subcommittees and workshops.	6. Obtain Flexible Congestion Relief funding, AB 434 funding, and federal flexible funding under ISTEA.	6. In progress.

GOVERNMENT & COMMUNITY RELATIONS DEPARTMENT (Continued)

PROGRAM III. Coordinate BART Speaker Bureau, tours, and community relations projects.

7. Give minimum of 60 presentations to interested groups. Lead tours of LMA. Represent BART at transit fairs.	7. Participation in civic and community groups and responding to constituent concerns, improves service delivery and creates a positive BART presence.	7. Staff preparing for "We Mean Clean" and "Beat the Back-up" weeks; Walnut Creek parking lot is site for walk-a-thon to raise money to combat AIDS.

PROGRAM IV. Develop and implement the District's annual state and federal legislative program.

8. Draft legislative program by December 1992; draft BART-sponsored legislation; monitor, report back, on bills affecting the district; coordinate legislative advocates.	8. Create legislative program that augments efforts to secure funding for district projects.	8. State Legislature approved, and Governor is expected to sign, a BART-sponsored bill, AB 3289 (Klehs) to fast-track Caltrans payment of local agency invoices. SB 1435 (Kopp) to implement federal funding programs under ISTEA, was passed by Legislature and awaits Governor's signature.

CUSTOMER SERVICES

PROGRAM I. Create and manage customer service programs to reorient the District's service delivery objective towards meeting the needs of our customers.

ACTIVITY	OBJECTIVE	PERFORMANCE MEASURE, July, 1992
1. Customer Complaints - Forward all letters and comment cards to responsible Department at the Weekly Operations Meeting. Departments are to respond back to customer within 10 working days.	1. Reduce response time to customers.	1. Program implemented at the end of the month.
2. Administer the Bay Region Handicapped Discount Program, Bikes on BART Program.	2. Handle all requests within a three-day turnaround.	2. All requests handled. 166 - Disabled I.D. cards 694 - Bike Permits Results: $2,540.00 Revenue.
3. Pass Office - BART ticket sales.	3. Provide accessibility of BART discount tickets.	3. Handled all in-person and mail orders. Results: $58,812.80 Revenue.
4. Pass Office - Company Store sales.	4. Sell 100% of current stock and add new items.	4. Store sales: $1,269.00. Vendors were contacted to develop three new items.
5. Bulk ticket sales.	5. Provide schools and companies with BART tickets.	5. 46 requests handled. Results $49,321.67 Revenue.
6. Tickets-To-Go Program.	6. Provide accessibility of BART discount tickets through outside vendors in the communities.	6. Ten new vendors joined BART's "Tickets-To-Go" Program, bringing the total to 637 vendors.
7. Provide telephone information to customers that call in for general information, trip planning information, and for connection with BART Staff.	7. Answer incoming calls and provide accurate information in a timely manner.	7. Installation work for a new telephone system and automated trip planning system is being developed. Completion date is scheduled for June, 1993.

FY 93 PROGRAMS, ACTIVITIES, OBJECTIVES & PERFORMANCE MEASURES

POLICE SERVICES DEPARTMENT

Program I. Provide a safe and secure environment to District patrons and employees, protect District property and respond to requests for service in a timely manner.

ACTIVITY	OBJECTIVE	PROGRAM MEASURE, JULY 1992
1. Handle calls for service.	1. Respond to requests for police services within 9 minutes for emergencies and 20 minutes for all non-emergency calls, 90% of the time.	1. Police responded to calls for service within 7.5 minutes for emergency calls and within 10.16 minutes for non-emergency calls.
2. Provide uniformed officer patrols.	2. a. Patrol and bicycle officers will patrol trains 200 times during revenue hours each week day. Officers will check stations, platforms, parking structures and lots an average of 145 times in a revenue week.	2. a. Officers patrolled trains over 200 times per weekday and made checks of stations, platforms, parking structures and lots over 150 times per week.
	b. K-9's will be assigned to end of line for the last 2 hours, 5 nights per week - 90% of the time weekdays and 50% of the time on weekends.	b. Departmental K-9's were assigned to end of line stations approximately 50% of the time at the end of revenue. This was below the established ojective. Shortages in availability of K-9's at the end of the line were caused by an industrial injury to a handler, a non-industrial disability to a handler and annual vacations. Vacancies at end of the line stations were filled by patrol officers when canine units were not available.
	c. Police Officers will be on each train during x-service hours, 8 p.m. to end of service, 80% of the time, from Coliseum to El Cerrito Del Norte, El Cerrito Del Norte to Civic Center and Civic Center to MacArthur, in order to enhance police presence and patron safety.	c. Police officers rode 77% of all trains during x-service between CCS, MOS, COS and CNS. This is very near the 80% goal. In addition to the trains ridden, the assigned offices handled 130 cases including 3 felony arrests. The handling of these cases caused the number of trains ridden to drop slightly below the 80% objective.

ACTIVITY	OBJECTIVE	PROGRAM MEASURE, JULY 1992
Program II. Fully investigate serious criminal activities and control crime trends through selective enforcement techniques.		
3. Conduct criminal investigations/targeted criminal activity.	3. a. Achieve an overall closure rate of 28% for Part I reported crimes (major crimes). Last year cases investigated exceeded 6,000. b. Surveil 8 lots/stations/trains per week by Special Problems Unit for targeted activity.	3. a. The closure rate for the month was 34% for the Part I crimes. This is well above the 28% clearance rate set as the objective. b. The Special Problems Unit met the objective and surveilled more than 8 lots and stations. They surveilled 15 lots and stations during the month.
Program III. Provide parking control and enforcement at all District parking facilities.		
4. Install an ample amount of electronic parking control machines at district parking facilities with high usage by non-patrons.	4. a. Both uniformed officers and parking lot attendants/cadets will patrol each District parking facility daily (Monday-Friday) with a goal of issuing at least 4,600 parking citations monthly. b. Complete installation of the parking control machines at the El Cerrito Del Norte, Lafayette, Lake Merritt, North Berkeley, Orinda, Rockridge and Walnut Creek Stations by November 1, 1992. c. Determine the effectiveness of the parking control machines in increasing District patronage.	4. a. Uniformed officers and cadets issued 4,314 parking tickets for the month. This is only 300 shy of the objective set. b. Installation at Rockridge is schedule to begin on August 24. c. Observations regarding space available and gate counts will be made when the parking control machines are installed.

ACTIVITY	OBJECTIVE	PROGRAM MEASURE, JULY 1992
Program IV. Create a district parking facility program designed to reduce the number of serious criminal incidents in District parking facilities.		
5. Implement the pilot parking lot security plan already funded in the FY92 Budget which includes fencing of two lots; installing CCTV in one parking structure, increased lighting at two lots and installing CCTV/call boxes at one lot. Implement a pilot parking structure security program designed to control access to three District parking garages by staffing the primary entrance of each structure with an attendant, primarily during revenue operation.	5. Reduction in the number of serious criminal incidents in District parking structures located at Daly City and El Cerrito Del Norte by 25%.	5. Not yet implemented. Negotiations with the labor union are coming to an end with anticipated progress on this objective.
Program V. Revenue Protection		
6. Provide security for cash handling building and collection crews.	6. Post one revenue guard at CHB to monitor all activity and maintain a daily log; provide two guards for each field collection crew—2 shifts per day, 6 days per week.	6. Two guards have been posted in the cash facility most of the time and two Revenue Guards have been assigned to each collection crew 100% of the time, six days per week.
Program VI. Develop and implement a police officer reserve program to lend assistance to police personnel in the performance of their duties.		
7. Actively recruit and train twenty qualified candidates to render voluntary assistance to police personnel.	7. Develop police reserve program for implementation by December 1, 1992. Recruit and hire reserves by March 1, 1993. Complete the mandated training by July 1, 1993.	7. The Police Reserve program is still in the research stage and is on schedule.

INTERNAL AUDIT DEPARTMENT

Program 1. The Internal Audit Department will assist in limiting operating and financial risks, audit District operations for compliance with policies, procedures, and applicable laws, review procedures to ensure that BART assets are safeguarded against misuse or misappropriation.

ACTIVITY	OBJECTIVE	PERFORMANCE MEASURE, JULY 1992
1. Conduct financial-related audits of all major District financial activities and transactions.	1. Perform 13 financial-related audits and 17 follow-up reviews covering revenues or expenditures in at least 50% of all District budget accounts.	1. One audit and one follow up review are complete. Four audits and three follow up reviews are underway. This objective will be met.
2. Conduct Information Systems (EDP) audits.	2. Perform 4 EDP-related audits of the District's computerized systems.	2. Three audits are underway. This objective will be met.
3. Conduct performance audits designed to assess economy, efficiency, and effectiveness of selected District operations.	3. Conduct 10 performance audits and 8 follow-up reviews of the District's performance output and procedures.	3. Four audits and three follow up reviews are underway. This objective will be met.
4. Conduct special investigations of potential fraud, waste, and abuse within the District.	4. Conduct special investigations (either self-initiated or as the result of management requests, or "audit hotline" allegations) of fraud, waste, and abuse within the District. Some special investigations will be conducted as part of other audit activities; that time is included in the staff year estimates for those activities.	4. This objective will be met.
5. Audit District's contracts with external parties.	5. Conduct 23 contract audits and 25 follow-up reviews covering District's construction, maintenance, and operations contracts with third parties.	5. Two audits are complete. Eight audits and two follow up reviews are underway. This objective will be met.
6. Audit construction contractor payments, overhead rates and claims on BART capital projects. Perform "before the fact" reviews prior to capital overhead rates being established.	6. Conduct an additional 10 contract and claims audits as well as 4 follow-up reviews covering District construction, maintenance and operations contracts with third parties.	6. This objective will be met.

FY 92 PROGRAM OBJECTIVES

SYSTEM SAFETY

Program I. Provide a safe environment for BART patrons through a program of safety inspections, accident investigations, and statistical analysis for trend determination an corrective accident prevention intervention.

ACTIVITY	OBJECTIVE	PERFORMANCE MEASURE, JULY 1992
1. Maintain and analyze patron injury statistics. Investigate/review patron accidents for cause. Take or recommend corrective action to minimize the reoccurrence of injuries.	1. Reduce projected 1992 station accident rate (platforms/concourse) by 10% in 1993, from 1.75 incidents per million patrons in 1992 (128) to 1.58 incidents per million patrons in 1993 (115).	1. The first quarterly report of BART accident statistics was published in July.
2. Review all new additions and/or modifications to District facilities, equipment and procedures.	2. Assure that 100% of the new additions and/or modifications to District facilities, equipment and procedures meed BART and regulatory safety requirements and that all safety critical additions and/or modifications undergo hazard analysis.	2. A total of 60 design projects for additions or modifications were reviewed.

Program II. Improve employee safety and safety performance through an aggressive campaign of safety training,facility inspections, and accident investigations.

3. Audit Operations Training Programs and recommend revisions as required.	3. Upgrade the safety content of certification and recertification training, and enhance safety performance of employees.	3. An audit of operations training is schedule to commence on 8/18/92.
4. Audit Train Operators' yard performance and develop statistical sampling methodology for the measurement of safety performance.	4. Assess train operators' operational safety performance in yards by auditing 30 operations staff on a quarterly basis.	4. An audit of Train Operator performance is scheduled to commence on 9/21/92
5. Provide timely accident investigation results to management for distribution to Train Operators.	5. Reduce accident reoccurrence by providing feedback to Train Operators within two weeks of incident.	5. No final reports issued during July.

ACTIVITY	OBJECTIVE	PERFORMANCE MEASURE, JULY 1992
6. Maintain and analyze yard statistics on collisions, derailments and split switches.	6. Reduce the incident rate of yard collisions, derailments and split switches by 50%; from 4.5 incidents per thousand yard car moves in FY 92 (22 incidents per year) to 2.75 incidents per thousand yard car moves in FY 93 (11 incidents per year).	6. There was one derailment during the month of July.
7. Conduct emergency exercises for Rail Operations and Fire Department participation. Conduct emergency drills at each BART facility annually. Enhance the realism of drills through emphasis on "no notice" drills.	7. Enhance employee emergency response skills and fire department coordination by conducting eleven emergency exercises and one multi-casualty exercise for Rail Operations and Fire Departments per year.	7. One emergency drill was conducted during the month of July.
Program III. Assure compliance with all applicable environmental, health and safety regulations.		
8. Conduct regulatory compliance inspections. Recommend specific corrective action and follow-up to assure action is taken.	8. Inspect each station and maintenance facility quarterly, (34 stations and 5 shops).	8. Three stations, two warehouses, one storeroom and seven offices were inspected during this period.
9. Publish a BART Environmental, Health and Safety Manual, revise the System Safety Program Plan and revise the BART Emergency Plan. Monitor these programs for compliance.	9. Assure that BART employees are trained in environmental, health and safety regulatory requirements and provide information and recommendations for compliance after new Safety Manual is issued on September 1, 1992.	9. Two training classes were initiated for hazardous materials and one for respirator fitness.
Program IV. The System Safety Department will assure compliance with California Permit By Rule Regulations.		
10. In order to conform with the new permitting procedures established by the State of Calif. Environmental Protection Agency, essential BART maintenance processes involved in the treatment of hazardous wastes as regulated by the "Permit By Rule" law will be identified.	10. Permits will be prepared and submitted to the State of California Environmental Protection Agency by January 1, 1993.	10. Permit by rule has been deferred to October 1, pending the issuance of new rule definitions by the State of California.

OPERATIONS ADMINISTRATION & FACILITIES MANAGEMENT

"Our mission is to provide high performance grounds maintenance, facilities management and technical support services to preserve and improve the District's infrastructure. We deliver with pride".

PROGRAM I. Provide certification/recertification and technical skills proficiency instructions to Operations personnel.

ACTIVITY	OBJECTIVE	PERFORMANCE MEASURE, JULY 1992
1. Provide safety related and OSHA mandated training for up to 2,500 District employees.	1. Deliver 3,000 student hours of instruction with an average test score of 80%.	1. 524 student hours of training was provided. This training was contained in indoctrination and orientation classes and no examinations were given.
2. Provide certification/recertification training for maintenance personnel.	2. Deliver 5,484 student hours of instruction, with an average test score of 80% on CPUC required tests.	2. 148 student hours of training was provided. No CPUC required examinations were required.
3. Provide instruction on the repair of electronic and electro-mechanical components in the revenue vehicle, communications, fare collection and wayside train control areas.	3. Deliver 2,360 student hours of instruction, with an average test score of 80%.	3. No training provided in this area. Staff acquisition is underway.
4. Provide instruction to maintenance personnel in Rolling Stock, Communications & Component Repair, and Power & Way Departments.	4. Deliver 14,082 student hours of instruction, with an average test score of 80%.	4. 628 student hours of training was provided in July with an examination average of 91.3%.

PROGRAM II. Provide technical project services for maintenance repairs, remodelling, equipment upgrades and improvement to District facilities.

5. Provide design, cost estimating, contract specifications and project oversight for District maintenance improvement projects including elevators/escalators, fare collection equipment, communications, electronics equipment, etc.	5. Complete 10 maintenance projects, re-roofing of four stations and the rehabilitation of Walnut Creek, Coliseum and 16th and 24th Street stations.	5. Rehab. work and painting at 16th and 24th Sts. was substantially complete as of Aug. 21. Scheduled completion of rehab. work at Walnut Creek and Coliseum is Oct. 7, but work is behind schedule because of problems between the general contractor and his subcontractors.
6. Develop, monitor and audit test equipment calibration and the District's vehicle replacement program.	6. Develop and maintain program and schedule for repair and calibration of District's test equipment by January 1993, and for the District's vehicle replacement by June 1993.	6. Equipment calibration program has been developed. Mechanical contract to be awarded this month. Schedules yet to be completed. Vehicle replacement program status in review, to ensure all procurements for current year remain on schedule.

PROGRAM III. Provide a safe and well-maintained facilities and grounds environment utilizing contractor and District personnel.

7. Provide facilities repairs, construction, painting and plumbing services. Develop and manage maintenance contracts for work which cannot be performed by District personnel.	7. Respond to trouble calls within 48 hours and emergency calls within 4 hours. Assure 90% of the maintenance contracts and preventative maintenance projects are on schedule.	7. All Emergency Trouble calls have been responded to within 4 hours and Non-Emergency Trouble calls within 48 hours. One maintenance project has been delayed.
8. Provide grounds and irrigation maintenance, tree pruning, weed control, fence repair, and debris removal District-wide.	8. Complete the following planned maintenance within 90% of schedule: a) 29 stations, 24 parking lots and 7 maintenance yards/access points once each 8 weeks; b) 56 miles of fence inspected each month and repairs made within 24 hours; c) 4 park-ride lots inspected twice monthly, corrective action taken within 24 hours; d) Raise and prune a minimum of 1,000 trees by June 1993.	8. a) 10 stations, 9 parking lots and 3 yards have had planned maintenance during July. b) 56 plus miles of fence have been inspected and emergency repairs made within 24 hours. c) All 4 park-ride lots have been inspected and corrective action taken within 24 hours. d) Raised and pruned 95 trees to date.

PROGRAM IV. Provide statistical analysis and publish reports on system performance and equipment reliability.

9. Prepare system performance and equipment reliability reports and manage Passenger Environment Survey (PES).	9. Publish Executive Summary, Vehicle, Operations and escalator performance reports daily. Conduct 3 PES surveys.	9. This period: - All Executive Summaries, Vehicle, Operations and Escalator Performance reports have been published daily. - The next PES is in development.

PROGRAM V. Provide design drafting and configuration control for all technical documents in the District.

10. Provide design drafting, produce contract books, maintenance manuals and illustrated parts catalogs.	10. Process 1,000 drawing indexes per month. 95% of all change orders within 30 days of request, and publish 3 updates to maintenance manuals.	10. - 914 indexes have been processed. - Completed 91% of all change orders. - No manual updates completed.

PROGRAM VI. Provide desk-top publishing, graphics and design artwork services, and management of the District's Research and Technical library.

11. Develop in-house graphics capability and provide technical research and maintenance of the technical library.	11. Complete 3 major graphics projects, 90% of artwork requests on schedule, and the library index system by June 1993.	11. - One major graphics projects is being prepared. - Library index system is in the design stage.

PROGRAM VII. Provide budget and administrative control of Operations programs and activities and logistics management for District events.

12. Administer OAFM and Engineering Departments FY 93 program and activities, and provide Operations' program monitoring, reporting and control.	12. Complete project and incident tracking program by December 1992, provide financial analysis, personnel reporting and project schedules monthly.	12. Project and incident tracking program in progress by Information Systems. Monthly reporting process completed.

ENGINEERING & CONSTRUCTION

PROGRAM I. Provide Engineering support for Capacity Expansion Program.

ACTIVITY	OBJECTIVE	PERFORMANCE MEASURE, JULY
1. System Thruput Enhancement Program (STEP) Project Mgmt, Engineering & C.M. Support.	1. a. Complete all designs and specs by 6/93. b. Complete M-Line for 2:15 min. hdy by 6/93.	1.
2. Provide Engineering and Project Management.	2. Complete Automatic Train Control (ATC) Retrofits by 12/92. Close out projects.	2.
PROGRAM II. Provide Engineering support for Access Expansion Program.		
3. Provide Design and Design support during Construction and Construction Management.	3. a. Compl. Del Norte Intermodal by 6/93. b. Start Daly City Intermodal Construction. c. Compl. Concord Pkg Str. 50% by 6/93. d. Compl. Walnut Creek Pkg Str. 40% by 6/93. e. Compl. Hayward Pkg Str. 30% by 6/93.	3.
PROGRAM III. Provide Engineering Support for Extensions.		
4. Provide Engineering support to Extensions projects.	4. a. Expand and develop the Central Computer System (CCS) data base for the Extensions. b. Complete necessary Engineering review of documents as requested, in allocated time.	4.
PROGRAM IV. Develop and install computers projects including NXTGEN.		
5. Data Acquisition System (DAS) Software Procurement and Implementation.	5. Award Data Acquisition System software by 8/92 Modify software for credit vendor project by 1/93.	5.
6. Procure and bring on-line the first UNIX-based fault-tolerant computer system.	6. Procure and install the first of the NXTGEN fault-tolerant computer for sftwre developmnt by 9/92.	6.
7. Procure BARTnet, Communications Network for Data Acquisition, Destination Sign System, & Central Control Systems computers.	7. Award the contract for the BARTnet computer communications network by 4/93.	7.
8. Develop the Destination Sign System software to accommodate the extension & existing stations.	8. Functional specifications completed by 12/92. Software coding specifications writtenby 6/93.	8.

9.	Upgrade Central to accommodate increased positions and the projection display system.	9. Upgrade Central to accommodate new display technology by Dec. 1993.	9.
10.	Engineering and software development to upgrade Central Control System (CCS) graphics terminals.	10. Convert from existing Tektronix graphics terminals to new industry standard work station terminals (X-Window) in Central by 12/92.	10.
11.	Port BART Simulator to new industry standard (UNIX) work station environment.	11. Port the existing BART Simulator code to operate on industry stndard (UNIX) work stations by 6/93.	11.
PROGRAM V.	Provide Engineering Support for Basic Systems Projects.		
12.	Provide Design, Design Support for Construction, Engineering, Construction Management and Project Management for Basic Systems projects.	12. a. Compl Berkly Hills Tunnel Standpipe by 5/93 b. Start construction by 1/93 to replace dry standpipes with wet standpipes at 56 loc. c. Compl upgrde of essntial pwr equip by 6/93 d. Replace depleted cathodic-protection anodes over Transbay Tube by 1/93. e. Inspect the steel skin of the Transbay Tube and submit a report by 4/93. f. Implement structual review program by 6/93 g. Complete yard improvements as follows: (1) Hayward by Feb. 1993 (2) Concord by May 1993 (3) Richmond by July 1993.	12.
PROGRAM VI.	Engineering Support to System Operations and Projects on the Existing System.		
13.	Provide project development and general Engineering support to outside departments and agencies.	13. Complete work on date committed within 10% variance.	13.
14.	a. Correct identified CCS software defects. b. Design and install CCS system enhancements. c. Support Train Information Monitor (TIM).	14. a. Make code corrections within 48 hrs. b. Design, test and install system enhancements within 30 days of approval. c. Provide sys admin & sftwre support for Train Information Monitor (TIM) within 4 hours.	14.
15.	Provide Engineering Support to assure system structural integrity.	15. Develop and implement structural review program.	15.

PROGRAM VII: Engineering Intern Program

16. Provide training and career opportunities within the District's Engineering Department.	16. Assign each second-year Intern to an approp-riate Engineering Division to function as an Assist Engineer. Complete recruiting for a second intern class by June 30, 1993.	16.

COMMUNICATIONS & COMPONENT REPAIR

Program I. ***Maintain Automatic Fare Collection (AFC) Equipment.***

ACTIVITY	OBJECTIVE	PERFORMANCE MEASURE, JULY
1. Maintain Automatic Fare Collection, equipment through scheduled and unscheduled maintenance.	1. Keep AFC Failure Rate no higher than 0.3 per 1,000 passenger trips. Maintain the 7:30 A.M. weekday equipment availability average of 90 percent for 182 ticket vendors and 95 percent for 361 faregates.	1. 0.24 incidents per 1,000 patrons. Ticket vendor availability 97.4 percent. Fare gate availability 98.8 percent.
Program II. ***Maintain District Communications Equipment.***		
2. Maintain Communications equipment through scheduled and unscheduled maintenance.	2. Reduce Communications equipment average downtime to 10.5 hours per incident by 1/1/93.	2. Average equipment failure down-time was 14.2 hours.
3. Provide Support for Capital Projects ie. Station Configuration, Systemwide Telephone Network Replacement, Credit /Debit/Vendors, Cubic Gate Modifications and BARTnet.	3. Complete 98 percent of assigned project within allotted time.	3. None scheduled during this period.
Program III. ***Secondary Repair and Overhaul of Revenue Vehicle Components.***		
4. Repair and Overhaul Revenue Vehicle components through scheduled and unscheduled maintenance.	4. Monthly average not to exceed 2 percent of Revenue Fleet out of service for Component Repair supplied parts. Complete 97 percent of scheduled maintenance on time.	4. Less than 2 percent of the revenue fleet was out of service for parts.

Program IV. ***Secondary Repair of Automatic Fare Collection, Communications, Wayside and Revenue Vehicle Components.***

5. Schedule and perform Preventive Maintenance for AFC, Communications, Destination Signs, Vehicle Electronic Components and Maintenance Vehicle Detection Devices (MVDD).	5. Monthly average not to exceed 2 percent of Revenue Fleet out of service for Electronic Repair supplied parts. Complete 97 percent of scheduled maintenance on time.	5. No cars were held out of service for parts. Completed 100 percent of scheduled maintenance on time.

Program V. ***Quality Assurance for Automatic Fare Collection, Communications, Secondary repair and Wayside.***

6. Perform Quality Assurance on Components, Electronic equipment and Systems.	6. Complete 100 percent inspection of Repaired Components and fabricated items per specifications.	6. Completed 100 percent of scheduled inspections.

ROLLING STOCK & SHOPS DEPARTMENT

PROGRAM I. Support daily revenue service - 1,476,500 car hours.

ACTIVITY	OBJECTIVE	PERFORMANCE MEASURE,MONTH
1. Provide daily revenue service vehicle requirement.	1. Provide 464 safe, clean and reliable transit vehicles each day. (88 A-Cars, 251 B-Cars, 125 C-Cars).	1.
2. Perform scheduled preventive maintenance and unscheduled repairs.	2. Perform PM's at 550 hour interval for A & B cars, 600 hour interval for C-Cars. Perform 237 PM's each month and 1412 unscheduled repairs each month. Reduce non-critical maintenance rescheduling or "E" items from 284 to 142 by June 30, 1993. Attain and maintain average revnue service failure rate of 8.0 per 1000 car hours.	2.
3. Perform heavy repairs and accident repairs.	3. Monthly Repair Output: a. 67 complete axle assemblies b. 25 traction motor c. 8 motor alternators d. 140 wheel sets trued e. 30 axle plated	3.
4. Improve vehicle performance in revenue service.	4. Attain fleet mean time between service delays of 950 hours by 12/31/92 and 1000 hours by 6/30/93. Decrease technician response time from 3.5 minutes to 3.0 minutes.	4.

PROGRAM II. *Improve safety and reliability performance by enhancing employees' skill levels through training.*

ACTIVITY	*OBJECTIVE*	*PERFORMANCE MEASURE*
5. Develop safety training, revise formal training program and formalize and document role and activities of Shop Engineers and Shop Trainers.	5. Decrease the number of collisions, split switches and derailments from 20 to 10 incidents in FY '93. Provide 640 man weeks of skill enhancement training and train 120 maintenance workers per month.	5.
6. Provide Vehicle Maintenance Engineering support to Vehicle Maintenance Shops.	6. Conduct audits of transit vehicle preventive maintenance work on at least 4 cars per month. Review at least 100 corrective repair actions per month. Reduce repeater cars from an average of 14 to 9 cars per month.	6.

PROGRAM III. *Schedule and inspect maintenance activities.*

7. Perform rigorous transit vehicle preventive maintenance inspections.	7. Perform an average of 237 P.M. inspections/month.	7.
8. Perform daily unscheduled transit vehicle repair inspections.	8. Perform 2000 inspections of unscheduled repairs each month.	8.
9. Perform receiving and repaired component inspections.	9. Perform 506 inspections of all parts received and 550 inspections of all repaired components.	9.

FY93 PROGRAMS, ACTIVITIES, OBJECTIVES & PERFORMANCE MEASURES
POWER & WAY MAINTENANCE DEPARTMENT

PROGRAM #I. Maintenance and repair of the District's traction power, wayside power, lighting and mechanical systems; station electrical systems; and elevators/escalators in support of service and passenger safety.

ACTIVITY	OBJECTIVE	PERFORMANCE MEASURE
1. Maintain and repair traction power substations and gap breakers. • Check alarm systems • Check and PM power battery systems • Inspect, clean, lubricate and adjust 1 KV and 34.5 KV circuit breakers	1. Complete 69 monthly maintenance PM's. Maintain 98% availability in support of revenue service.	1. Completed 69 monthly maintenance PM's. Accomplished 98% availability in support of revenue service.
2. Maintenance and repair of elevators/escalators. • Inspect, lubricate, adjust chains, rollers, check side panel and skirt clearances on escalators • Inspect clean and make necessary equipment adjustments on elevators	2. Schedule and complete 138 elevator and 266 escalator PM's monthly. Provide 97% elevator/escalator availability.	2. Completed 138 elevator and 266 escalator PM's. Provided 98.8% availability.

PROGRAM #II. Maintenance and repair of the District's automotive and heavy rail maintenance equipment including cash handling trucks and Police Service patrol vehicles. Manage the capital replacement program for all categories of equipment replacement. Provide machine shop welding and fabrication requirements to support daily shop responsibilities. Maintain a high safety standard for the shop and all equipment serviced.

3. Perform maintenance and repairs to the 230 unit automotive and heavy work equipment fleet engaged in revenue service support: • 142 light duty vehicles • 61 heavy duty vehicles - road/rail • 20 maintenance fixed rail units • 7 cash handling trucks	3. Ensure that 214 vehicles or 93% of the fleet is available daily in support of revenue service.	3. Accomplished daily availability of 230 vehicles or 97.2% of the fleet availability in support of revenue service.

PROGRAM #III. Maintain all wayside train control equipment in a safe and reliable manner which will support on-time train performance to meet daily service demands.

4. Maintain and repair 362 switch machines at 30 mainline locations and 4 yards. • Perform 1/4" obstruction test on switch point • Check switch clutch, tighten all bolts on switch machine and connecting rods • Clean bias neutral controller, check timer • Lubricate switch	4. Schedule and perform weekly, monthly, quarterly, semi-annual and annual preventative maintenance at 34 locations. Complete an average of 63 PM's per month. Achieve a 98% service availability to support revenue service.	4. Scheduled 65 switch machine PM's and completed 64 PM's. Accomplished 98% service availability in support of revenue service.

PROGRAM #IV. Maintain all train control station computers and Central Computer systems to ensure that the reliability of the equipment fully supports daily service demands.

5. Maintenance and repair of Central Train Computer System.	5. Schedule and perform monthly PM's for each of 6 Data General computers and peripherals. Maintain computers at a 99% availability in support of revenue service.	5. Scheduled 6 PM's and completed 5 PM's. Accomplished 99% computer availability in support of revenue service.

PROGRAM #V. Preventative and corrective maintenance of 144 miles of track, 22 miles of yard tracks and 359 switches including rail grinding, surface and line, curve rail renewal, switches and frog maintenance on mainline track to provide smooth, quiet, and safe train operations and on-time train performance for passenger convenience.

6. Maintain ballast and direct fixation track. • Measure and adjust track gauge • Surface track and regulate ballast • Lubricate and torque rail fasteners • Perform switch and frog maintenance • Replace curve worn rail	6. Schedule and complete on a monthly basis an average of 12.6 miles of track maintenance on ballasted and direct fixation track.	6. Completed 7.6 miles of track maintenance. Schedule was not completed due to priority work at C53 and derailment at R65.
7. Mainline track inspection. • Geometry car measurement inspection • Visual and measurement high rail inspection • Visual and measurement walking inspection	7. Perform 8 quarterly geometry car track measurement inspections. Schedule and complete 22 monthly visual and measurement track inspections by high rail. Schedule and complete 40 monthly visual and measurement walking inspections.	7. Scheduled 5 geometry car track inspections during quarter July, August, September. Scheduled and completed 315 visual and walking track inspections systemwide and 17 structure inspections.
8. Rail grinding mainline • Remove rail corrugations • Reprofile curve rail	8. Grind 5.0 miles of mainline track on a monthly schedule.	8. Rail grinder completed 0.96 miles of production grinding. Target was not achieved due to priority work at C53 and derailment at R65.

PROGRAM #VI. Preventative and corrective maintenance of 19.2 miles of aerial structures, 31.9 miles of subway structures and 22.3 miles of at-grade structures. Water intrusion and drainage control, track invert sub-drainage and invert cleaning. Corrosion control including inspection and surveillance of all District structures. Maintain the integrity of District's fire suppression systems. Monitor the District's structures.

9. Tunnel and invert washing • Berkeley Hills Tunnel • Transbay Tube • Oakland Wye • Subway areas	9. Schedule and complete 18 miles of subway and invert washing each month.	9. 12.92 miles of subway and invert washing. Mainline washdown goal not completed due to unscheduled work caulking linear plate water leaks on the M-line.

TRANSPORTATION

Program 1. **Provide customer driven service that is generally perceived by consumers as safe, reliable and fast on all BART rail and bus lines.**

ACTIVITY	OBJECTIVE	PERFORMANCE MEASURE
1. Evaluate ridership levels and patterns for special events as well as on a routine basis to identify selective opportunities for enhancing customer satisfaction by providing other than "all stop" rail service and prepare train schedules to operate express or semi-express service.	1. Operate express or semi-express demonstration rail service on at least four separate occasions.	Plans for demonstration services are currently being developed with the Christmas Shoppers Special promotion scheduled for the first demonstration.
2. Analyze passenger load factors on all individual train trips to implement changes in train lengths in a manner consistent with the District's loading guidelines.	2. In order to meet the District's loading standards, load factors will be evaluated and trains resized at least eight times per year.	The first resizing was completed on August 17th and the next evaluation is scheduled for late September.
3. Review ridership levels and service performance on BART Express bus routes in order to adjust and alter schedules and routes to meet passenger demand.	3. Improve the farebox ratio on BART Express to 16.5 percent for FY 93 as compared to 16.2 percent as of December 1991 in FY 92.	The farebox ratio for the month of July was 17.25%, exceeding the goal.
4. Tabulate data from Laidlaw on bus service performance. Conduct independent surveys to verify Laidlaw information and review and adjust timetables and routes based on survey results, passenger demand and traffic conditions.	4. While reducing the number of buses arriving early to no more than 15 percent, maintain on-time performance on BART Express at 97 percent for FY 93. As of December 1991, FY 92 YTD passenger on-time performance is 97 percent.	The on-time performance for the month of July was 97.2%, exceeding the goal.
5. Conduct quarterly performance and ridership surveys of BART Express bus service and develop schedule and route change proposals based on survey results, public and operator input and in response to input from public officials.	5. Based on quarterly ridership and performance surveys of BART Express bus operations, implement at least four schedule changes and one route change on contract bus routes in FY 93.	No schedule or route changes were implemented.

6. Analyze passenger on-time performance and	6. Compared to FY 92, improve passenger on-time	Passenger on-time performance for July was 91.7

6. Analyze passenger on-time performance and institute corrective actions such as improved delay management in Central, additional troubleshooting training for Train Operators and schedule revisions, to improve performance.	6. Compared to FY 92, improve passenger on-time performance by at least 0.1 percent. Passenger on time performance was 96.2 percent for FY 92.	Passenger on-time performance for July was 91.7 percent.
7. Survey and analyze station dwell times; simulate train operations with reduced dwell and/or running times; compare simulated train operation results with actual performance and issue and implement revised schedules.	7. By June 30, 1993, speed up service by an average of at least one minute per trip on each line.	Service was sped up substantially with the June 22nd schedule change. Further reductions in travel time are most likely dependent on successful implementation of parts of the WTC/SPM project.
8. Monitor the turnaround time of late arriving trains and develop and disseminate procedural changes to expedite dispatches.	8. For FY 93, turn 90 percent of all late arriving trains at their terminal within 90 seconds and dispatch 97 percent of all trains that arrive on time within 15 seconds of their scheduled departure time.	Software modifications to allow measurement of this goal are in development and completion is scheduled for the 2nd quarter of FY 93.
9. Analyze passenger delay minutes and conduct regular reviews of Central's delay management performance.	9. Through improved delay management techniques, reduce the average number of passenger delay minutes per delay incident by at least 10 percent compared to FY 92.	Program not yet developed by the Control Center.
10. Identify two majors incidents per quarter to be critiqued; compile all reports related to the major incidents and determine which departments played a role in the incident and seek their attendance at the critique.	10. Host a quarterly "Major Incident Review Meeting" with all affected departments to conduct an in-depth critique of the District's response to a major service disruption.	Program not yet developed by the Control Center
Program II. **Provide a physical environment for passengers in stations and on trains that is clean, attractive and user friendly.**		
11. Maintain System Service worker staffing at the budgeted levels; perform daily scheduled cleaning activities at all stations and perform heavy station cleaning on the prescribed cycles.	11. Based on the quarterly Passenger Environment Survey (PES), improve the average FY 93 rating by at least 10 percent over the FY 92 rating for station/bathroom cleanliness.	Awaiting the results of the 1st quarter Passenger Environment Survey scheduled for the first week of September.

12. Maintain System Service worker staffing at the budgeted levels; develop and monitor adherence to a schedule for heavy station cleaning and ensure that all necessary supplies for station cleaning activities are available when needed.	12. Adhere to the prescribed station scrub crew heavy cleaning cycle at least 97 percent of the time.	With the implementation of a new floor care process, this program is currently under review; however, preliminary results indicate a measurable improvement.
13. Monitor the condition of on-board advertising signs and replace signs that are improperly installed, torn, or graffitied.	13. For FY 93, achieve a 95 percent PES rating for properly installed graffiti free train advertisement signs that are not torn (joint with Rolling Stock & Shops and Marketing/Customer Relations).	Awaiting the results of the 1st quarter Passenger Environment Survey scheduled for the first week of September.
14. Report all instances of car doors being cutout and make the necessary adjustments/repairs in yards or shops to doors that have been cutout.	14. For FY 93, achieve a 99 percent PES rating for cars with no doors cutout (joint with Rolling Stock & Shops).	Awaiting the results of the 1st quarter Passenger Environment Survey scheduled for the first week of September.
15. Monitor the availability of brochures in the information kiosks. Ensure that there is always an active printing contract in place for each of the four brochures and adhere to the prescribed brochure ordering procedures to ensure a stock of brochures in each station.	15. Maintain "All About BART", "BART and Buses", "Weekday Train Schedules" and "Weekend Train Schedules" in the information kiosks 95 percent of the time as measured by the PES.	Awaiting the results of the 1st quarter Passenger Environment Survey scheduled for the first week of September.
16. Ensure two information board/clocks are available per booth; ensure that the hooks for each clock are properly installed and routinely monitor usage of the boards/clocks.	16. For FY 93, as measured by PES, at least 96 percent of all booths will either be staffed or have the information board/clock properly displayed.	Awaiting the results of the 1st quarter Passenger Environment Survey scheduled for the first week of September.
17. Ensure that an adequate stock of properly sized, complete uniforms is available at all times; routinely monitor compliance with uniform requirements and provide feedback to Station Agents on compliance with uniform requirements.	17. FY 93 "Passenger Environment Survey" (PES), will average 99 percent for "Station Agents in Uniform".	Awaiting the results of the 1st quarter Passenger Environment Survey scheduled for the first week of September.

Program III. **Operate the BART system as safely as possible for employees, passengers and the general public.**

18. *Improve employee training efforts directed at*	18. Compared to FY 92, reduce yard collisions,	FY 93 to date there have been 0 yard incidents. ^ 50%

18. Improve employee training efforts directed at operational safety; routinely observe the performance of Train Operators in the yard and on mainline; provide feedback to Train Operators on their compliance with operational safety practices and institute and comply with a disciplinary system which treats operational safety violations in a clear, unambiguous and serious manner.	18. Compared to FY 92, reduce yard collisions, derailments, and switch run throughs by 50 percent.	FY 93 to date there have been 0 yard incidents. A 50% reduction over FY 92 will achieved if the annual total does not exceed 5.
19. Maintain supervisory staffing at budgeted levels; develop a checklist of items to be observed during mainline check rides and develop schedules and a reporting system to ensure that all Train Operators receive a check ride at least every three months.	19. Conduct quarterly mainline ride checks on all Train Operators with the first set of checks to be completed by September 30, 1992.	A survey where other Transit Systems were contacted has been completed and the analysis/review is in progress. A program will be developed and implemented before October 30th.

Program IV. **Provide management of financial and manpower resources within the approved FY 93 budget and fiscal support for departmental operations.**

20. Compile, analyze, and review monthly financial and bi-monthly payroll reports and schedule and chair 24 "Financial Performance Review Meetings" with Line Managers.	20. Conduct a monthly "Financial Performance Review Meeting" with Line Managers to ensure financial performance stays within budget.	Financial performance review meetings should begin shortly. A permanent agenda and specific fiscal goals are being developed.
21. Track monthly staffing levels; project attrition rates, headcount requirements and hiring needs and meet the necessary administrative requirements to hire personnel in a timely manner.	21. Maintain average monthly Transportation Department staffing levels within two percent of budgeted headcount.	The average monthly headcount for the Transportation Department is within two percent of the budgeted headcount.
22. Track Transportation employee's sick leave usage on a bi-monthly basis and conduct necessary follow up activities with employees in accordance with Transportation's sick leave control program.	22. Compared to FY 92, reduce the use of paid and unpaid sick time by 10 percent for Train Operators, by 10 percent for Station Agents and 5 percent for System Service Workers.	A statistical base to measure this goal is in the final stages of development. Format will be in place before the end of the first quarter of FY 93.
23. Process all bi-monthly crew sheets and pay records in a timely manner and investigate and correct pay discrepancies and identify procedural adjustments to improve accuracy.	23. Compared to FY 92, reduce the number of hand checks issued due to timekeeping errors by seven percent.	Database to measure handchecks issued has not yet been completed. Completion is scheduled before the conclusion of the next reporting period.
24. Develop reporting systems for overtime tracking for Train Operators, Station Agents and System Service workers on a bi-monthly basis; review	24. For FY 93, overtime in the Transportation Department will be within 1.5 percent of the budgeted amount.	Overtime for Transportation Department employees for the month of July was 19.7% over budget.

overtime data with Line personnel on a bi-monthly basis and institute appropriate overtime control actions when warranted.		

Program V. **Encourage Transportation personnel to carry out their responsibilities to the public in a conscientious, courteous and friendly manner.**

25. Provide Train Operators with clear guidelines and expectations regarding the making of arrival announcements; routinely monitor frequency and quality of arrival announcements and provide feedback to Train Operators.	25. For FY 93, achieve a 98 percent PES rating for Train Operators making arrival announcements.	Awaiting the results of the 1st quarter Passenger Environment Survey scheduled for the first week of September.
26. Provide Train Operators with clear guidelines and expectations regarding the making of transfer announcements; routinely monitor frequency and quality of transfer announcements and provide feedback to Train Operators.	26. For FY 93, achieve a 95 percent PES rating for Train Operators making transfer announcements.	Awaiting the results of the 1st quarter Passenger Environment Survey scheduled for the first week of September.
27. Select a qualified consultant to provide specialized and professional confrontation avoidance training; schedule all Station Agents to attend the confrontation avoidance class and monitor attendance at the classes.	27. By December 31, 1992, all Station Agents and their Supervisors will have completed a "Confrontation Avoidance Class".	The E.D.D., consultant contract is awaiting BART Board approval. Board presentation is scheduled for September 8th.

EXTENSIONS LIAISONS

PROGRAM 1. The Department of Extensions Liaisons provides operating support to the Extensions program including day-to-day assistance, functional design review, coordination of the transportation and maintenance impacts of major projects and the Extensions Cutovers, and coordination of the start-up operations for the different segments of the extensions. This department is funded 100 percent from the Capital Budget.

ACTIVITY	OBJECTIVE	PERFORMANCE MEASURE, AUGUST 1992
1. Provide professional assistance, including timely design reviews, covering Transportation and Maintenance. Review all aspects of functional design and construction, and ensuring standardized applications of all Transportation and Maintenance policy.	1. No delays in design or construction waiting for solutions to operating problems.	1. 95% of all reviews returned on time.
2. Coordinate cutovers for Bay Fair and South Concord Leads during FY93. Provide operating assistance and coordination for CSX construction activities throughout the fiscal year.	2. Coordinate installation of the #10 crossover and revised A-2 track at Bay Fair. Coordinate the civil contract at Concord South Leads. Coordinate CSX FY93 construction interface with Daly City Yard and Turnback and Parking Structure, Station and Yard Throat.	2. Complete each evolution with minimal unplanned delay to the passengers and no safety problems. No incidents with work on active system to date.
3. FY94 budget for coordinating all active extension's Force Account work.	3. Develop Transportation and Maintenance FY94 Force Account Plan.	3. Completed and distributed by 12/31/92.
4. Development of startup plans for moving into revenue service for PAX 1A, DPX and CSX.	4. Coordinate development of startup plans with Operations and Development Departments.	4. PAX 1A and DPX Plans to be developed to 60% level by 6/30/93. CSX Plan to 85% level by 6/30/93.

ACTIVITY	OBJECTIVE	PERFORMANCE MEASURE, AUGUST 1992
5. Coordinate the long range track and resource usage program for both Extensions and Operations.	5. Continue coordination of the Long Range Track Allocation Plan.	5. Kept current and published monthly. Now covers next 3 years.

PROGRAM II. Extensions Liaisons manages the Extension Service Plan Study to provide analysis and recommendations on the systems expected growth and methods for handling that growth.

ACTIVITY	OBJECTIVE	PERFORMANCE MEASURE, AUGUST 1992
1. Extension Service Plan Study provides completed sections of the Extension Service Plan Study on time.	1. Complete the ESPS program on schedule and within budget.	1. Complete the following: Train Control - 7/15/92 Two parts completed. Final part in process. Power Study - 10/1/92 Maintenance Analysis - 1/1/93 Computer Model - 2/1/93

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FY '93 PROGRAM OBJECTIVES

DEVELOPMENT PROJECT CONTROL & ADMINISTRATION

ACTIVITY	MEASURE	PROGRAM PERFORMANCE, JULY 1992
PROGRAM: Development and control of the Extension Program's budget, claims, scheduling, documentation, quality assurance and owner-controlled insurance program, preparation of utility agreements, and administration of the Development Department.		
1. Update and monitor the Extension Program Project Management System for the Dublin/Pleasanton, Pittsburg/Antioch, Colma and Warm Springs extensions.	1. Issue Project Control summary, detailed and exception reports within 10 days of the financial system close. Prepare Detailed Cost, CPP and Funding Projection and Draw-down by Source monthly. Prepare Cash Flow and Commitments Reports quarterly.	1. All reports have been completed and issued.
2. Prepare Extension project schedules, monitor preparation of schedules by contractors and monitor progress against the schedules.	2. Issue schedule summary, detailed and exception reports monthly, by the 15th of the month.	2. All deadlines were met and the reports were issued.
3. Prepare summary report utilizing Activities 1 and 2.	3. Issue a Monthly Extensions Status Update for the General Manager within 10 days of the financial system close.	3. A sample format has been submitted for approval.
4. Prepare agreements and coordinate engineering, design and field construction with utility and petroleum companies, municipal authorities, and other transportation and railroad companies.	4. a. Finalize seven utility/agency agreements by December 1992. b. Draft eight new agreements by December 1992. c. Coordinate seven utility and municipality engineering design packages by June 1993.	4. a. Two are nearing completion pending legal review. b. All agreements are in various stages of completion. c. This is ongoing throughout construction.
5. Develop and manage a quality assurance/quality control program which will encompass all extension projects to provide quality design and construction.	5. Perform design and construction audits. Ensure that QA/QC programs for construction are in place and are being implemented. Review results on spot check and audit basis.	5. Qualified applicants are currently being solicited to perform these functions.
6. Monitor potential claims and change orders.	6. Prepare independent estimates for change orders and claims and monitor the associated dispute resolution process by contract as awarded.	6. At this time, change orders are minimal. Claims are not prevalent yet due to the partnering process associated with the dispute resolution process.

7. Compile the FY 94 activities and objectives, and the associated labor and non-labor budgets for all department cost centers. Coordinate Extension Program activities and budget with 25 District Divisions.	7. Coordinate the preparation of FY 94 activities and objectives, and the BART support labor and non-labor requirements by the end of December 1992. Meet the deadline for submission of the consolidated Development Department budget book.	7. Work will commence in October or November for this item.
8. Prepare Extension Program report.	8. Meet the deadlines for weekly, monthly and quarterly reports which provide information on the Extension Program.	8. All deadlines were met.
9. Monitor consultant submittals for compliance with District graphic standards, establish a technical library and maintain Extension program files.	9. Review design submittals, maintain a technical library and oversee processing of documents in the Program files.	9. This is an ongoing activity which is currently on schedule.
10. Manage the Owner Controlled Insurance Program (OCIP) for the Extension Program. Coordinate activities and information between BART, the insurance broker and insurance companies.	10. Supervise and administrate the BART Construction Insurance Administrator's contract for each contract as it gets underway. Review losses and analyze claims reserve on a monthly basis. Monitor and report monthly on the promptness and accuracy of insurance claims administrator.	10. The supervisor was brought on board by August 1 and is in process of organizing these activities.

FY '93 PROGRAM OBJECTIVES

SYSTEM INTEGRATION

ACTIVITY	MEASURE	PROGRAM PERFORMANCE, JULY 1992
PROGRAM: Implementation of the various systems for BART's Phase I Extensions Program, including trackwork, train control, traction power, communications, automatic fare collection, agent's booths, elevators, escalators, signage, lighting, public address, and fire alarm.		
1. Direct the development of systems final design including procurement and bidding. Direct the implementation of the design by managing the work of contractors, including fabrications, delivery, installation and testing.	1A. Manage the following six systemwide Design, Furnish and Install contracts to the completion percentages shown below by June 30, 1993.	1A.
	a. Automatic Train Control - 15%	a. The Notice to Proceed was given to GRS on May 26. First submittals were received in July including: 90 day schedule, Management Plan and Drawing Format Samples.
	b. Traction Power Equipment - 15%	b. On June 29, the Notice of Recommended Award for this contract was issued to all bidders identifying CPC/Metco, Co. as a recommended awardee. Protests from two bidders were received. Draft decision on the protest was sent to the Board. The award of this contract is scheduled for August 28.
	c. Cable Network - 10%	c. The bids for this contract were received on June 30 and are currently being reviewed. The award is scheduled for September 24.
	d. Station Communications/SCADA - 10%	d. The bids for this contract were received on June 30 and are currently being reviewed. The award of this contract is scheduled for September 24.
	e. Radio - 10%	e. On May 12 the consultant received a Notice to Proceed for design of 800 MHz radio system. 85% review documents are due on August 3.
	f. Automatic Fare Collection Equipment - 10%	f. This contract was advertised on May 8. Proposals are due on August 25.

1B.	Manage the following trackwork and traction power procurement contracts to completion % shown below by June 30, 1993:	1B.
	a. Concrete Cross Ties - 50%	a. On June 8 the Notice to Proceed was issued to J.H. Pomeroy & Co. for this contract. The Design and Fabrication Conference was held on July 15.
	b. Special Trackwork - 20%	b. This contract was advertised on July 2. A pre-bid meeting was held on July 20. Bids are due on September 15.
	c. Running Rail - 50%	c. On June 25, the Notice of Recommended Award for this contract was issued to all bidders identifying A&K Railroad, Co. as a recommended awardee for Procurement of Running Rail Contract. A protest was received from L.B. Foster Company regarding the award of this contract. This protest is under review.
	d. Contract Rail System - 30%	d. The Notice of Award was sent on July 29 to L.B. Foster Company for Procurement of Contact Rail System contract.
	e. Construction Equipment - 70%	e. The Notice of Award was sent on July 30, to Plasser American Corporation for the Procurement of Construction Equipment contract.
	f. Direct Fixation Fasteners - 50%	f. The Procurement of Direct Fixation Rail Fasteners contract was advertised on July 9. A pre-bid conference was held on July 30 and bids are due on September 1.
	g. 34.5kV Cable - 30%	g. On June 29 the contract for 34.5 kV Power Cable was awarded to Okonite, Co., Inc. The contract was executed on July 13. The initial contract meeting was held on July 22.
1C.	Advertise, Award and Manage Trackwork Installation and Wayside Traction Power Installation contracts to the following completion % by June 30, 1993:	1C.
	a. PAX Trackwork - 5%	a. The consultant continues with the design effort. The 100% submittal is scheduled for August 3.

b. PPX Trackwork - 5% b. The consultant submitted the 100% contract

	b. DPX Trackwork - 5%	b. The consultant submitted the 100% contract documents on July 16.
	1D. Complete design and advertise as indicated the following contracts:	1D.
	a. Agent's Booths - November 1992	a. The design is in progress. This contract is scheduled to be advertised on November 9, 1992.
	b. Elevators - November 1992	b. The consultant submitted 85% contract documents on June 19.
	c. Escalators - November 1992	c. The consultant submitted 85% contract documents on June 19.
	d. Fire Alarm System - November 1992	d. The design is in progress. This contract is scheduled to be advertised on October 1.
	e. Signage, Lighting and Public Address Structures - March 1993	e. The design is in progress. This contract is scheduled to be advertised on December 14.
	f. PAX Traction Power Installation - May 1993	f. The 100% submittal is scheduled for August 24.
	g. DPX Traction Power Installation - July 1993	g. The 100% submittal is scheduled for October 92.
	1E. Final design for trackwork and traction power installation contract for WSX.	1E. Final design is pending Board approval of the Project.
2. Department Administration.	2. Administer and report on project budget, schedules and expenditures.	2. Administration Schedule and budget reports were submitted.

WEST BAY EXTENSION
COLMA STATION

ACTIVITY	MEASURE	PROGRAM PERFORMANCE, JULY 1992
PROGRAM: The Colma Station Extension extends the West Bay route by 0.7 miles to a single BART station south of San Francisco on the route to San Francisco International Airport. Project management administers the budget, schedules and expenditures; oversees engineering consultants and prepares applications and negotiates for a full-funding agreement. An accelerated construction schedule has been undertaken to expedite the opening of the Colma Station by six months. This would allow passenger service to begin at the Colma Station September 1995 rather than March of 1996.		
1. Station Foundations & Trackway Construction Contract.	1. Complete Construction by April 1993.	1. Construction access road complete. Excavation 20% complete for retaining walls. Water distribution lines relocation nearly complete.
2. Parking Structure Construction Contract.	2. Complete 40% of construction by June 30, 1993	2. Bid opening July 14, 1992. Kiewit Pacific lowest apparent bidder, nearly $10M over engineer's estimate. Bid evaluation on-going to identify significant price differences.
3. Station, Line and Track Construction Contract.	3. a. Advertise contract - August 1992 b. Award Contract - November 1992 c. Complete 25% of construction by June 30, 1992 (complete civil construction October 1994).	3. a. Advertise contract - August 1992. b. Award contract - December 1992. c. Complete 25% construction - June 1993.
4. Federal Transit Administration (FTA) Full Funding Grant Agreement.	4. Prepare supporting material and assist the BART Government Relations Department in negotiation for a Full Funding Grant Agreement.	4. Five meetings have been held to date with the FTA regarding components of the FFGA.
5. Inform participating agencies of progress on the Colma Station Extension.	5. a. Monthly Project Manager's Report b. Monthly FTA Project Management Oversight (PMO) Review. c. Quarterly FTA Review. d. Monthly Project Development Interagency meetings. e. Quarterly CalTrans Review.	5. a. Submitted on schedule. b. Presented on July 21 and 22, 1992. c. Next meeting is scheduled for August 21, 1992. d. Presented on July 7, 1992. e. Next meeting scheduled August 19,1992.

FY 93 PROGRAM OBJECTIVES

DUBLIN/PLEASANTON EXTENSION

ACTIVITY	MEASURE	PROGRAM PERFORMANCE, JULY 1992
PROGRAM: The Dublin/Pleasanton Extension (DPX) Project Team was created to manage and coordinate the design, construction and implementation of an extension to service Alameda County. Construction of the Extension has started and revenue service is to begin in the last quarter		
1. Manage department and coordinate the design contracts for DPX.	1. The following design contracts will be complete and advertised as follows:	1.
	- West Dublin/Pleasanton Station and Parking Lot - November 1992.	- West Dublin/Pleasanton Station put on hold. New advertise date July 1993.
	- Ashland Ave. to I-238/I-580 I/C (I-238 Corridor) - November 1992	- Delayed by CalTrans. New advertise date June 1993.
2. Manage and coordinate the construction contracts for DPX.	2. The following construction contracts and their % complete status as of the end of June 30, 1993:	2.
	- Trackway, I-238 to Castro Valley (7D) Contract No. 08YC-125 - 95%	- Notice to Proceed to be given in early August 1992.
	- Trackway, Bay Fair to I-238 Corridor (7A) Contract No. 08YC-110 - 70%	- Notice to Proceed given on July 8, 1992.
	- Structures, Redwood Rd, Crow Creek & Crow Canyon (4C) Contract No. 08YA-110 - 45%	- Notice to Proceed to be given in September 1992.
	- Trackway, E. Castro Valley Blvd. to Foothill Rd. (5B) Contract No. 08YC-140 - 55%	- Notice to Proceed to be given in August 1992.
	- Trackway, Redwood Rd. to E. Castro Valley Blvd. (5A) Contract No. 08YC-130 - 55%	- Contract Advertised on July 14, 1992.
	- Hopyard Road Bridge (6A) Contract No. 08YA-140 - 80%	- Notice to Proceed to be given in September 1992.
	- Structures, San Lorenzo & East Castro Valley Blvd. (4D) Contract No. 08YA-120 - 33%	- Contract scheduled to be advertised in late August 1992.

ACTIVITY	MEASURE	PROGRAM PERFORMANCE, JULY 1992
2. Cont'd	- Highway Widening & Trackway, Foothill Rd. to End of DPX (6) Contract No. 08YC-150 - 15%	- PS&E submittal scheduled for October 1992. Contract scheduled to be advertised in March 1993.
	- Castro Valley Station & Parking Lot (1) Contract No. 08YS-110 - 25%	- Final submittal scheduled for October 1992. Contract to be advertised in October 1992.
	- West Dublin/Pleasanton Station & Parking Lot (2) Contract No. 08YS-120 - 15%	- Design on hold.
	- Trackway & Highway, I-238 Corridor (7B) Contract No. 08YC-120 - 10%	- PS&E submittal scheduled for January 1993. Contract scheduled to be advertised in June 1993.

FY '93 PROGRAM OBJECTIVES

PITTSBURG/ANTIOCH EXTENSION

ACTIVITY	MEASURE	PROGRAM PERFORMANCE, JULY 1992
PROGRAM: The Pittsburg/Antioch Extension (PAX) project team was created to manage and coordinate the design, construction and implementation of an extension to service East Contra Costa County. Construction of the Extension was started and Phase I should be completed in March 1997.		
1. Manage and coordinate the design contracts for PAX.	1. The following design contracts and their status are projected:	
	- North Concord/Martinez (NCM) Station Parking Lot & Access Road - to advertise Sept. 1992.	-The design is complete and contract advertised on July 6.
	- Line Section, NCM Station to State Route 4 - to advertise Sept. 1992.	-This contract was incorporated into the North Concord/Martinez Station contract.
	- PAX Trackwork Installation - to advertise Dec. 1992.	-The 85% submittal was received on May 19.
	- Line Section, CalTrans ROW to Kinne Blvd - to advertise March 1993.	-The 60% submittal was received on Jan. 28. The 100% submittal is due in August.
	- West Pittsburg Station & Parking Lot - 100% submittal due March 1993.	-The 60% submittal was received on June 29.
	- PAX Traction Power Installation - to advertise March 1993.	-The 85% submittal was received on May 8.
	- Bailey Road Interchange (CalTrans) - to advertise June 1993.	-The 100% submittal was received on July 23.
2. Manage and coordinate the construction contracts for PAX.	2. The following construction contracts and their % complete status as of the end of June 30, 1993:	
	- Line Section, Kinne Blvd to Willow Pass Road West - complete (cpt) Sept. 1992.	-Substantial completion was announced on July 15.
	- Line Section, Concord Station to NCM Station - 30%.	-The contract was awarded July 9.
	- NCM Station, Parking Lot & Access Road - 25%.	-The bid opening is scheduled for Sept. 1.
	- Line Section, NCM to State Route 4 - 25%.	-See design section for status.
	- PAX Trackwork Installation - 10%.	-See design section for status.
	- Concord Yard South Leads.	-The contract was re-advertised on July 13.

WARM SPRINGS EXTENSION

ACTIVITY	MEASURE	PROGRAM PERFORMANCE, JULY, 1992

PROGRAM: Manage the design, construction and installation of the BART Warm Springs Extension continuing 5.4 miles from the existing Fremont Station and terminating at the Warm Springs Station just south of Grimmer Avenue in Fremont. (Subject to redefinition when the project is approved by the BART Board of Directors).

1.	Perform engineering design activities.	1.	Complete Preliminary Engineering by June 30, 1993.	1.	BATC provided engineering support as required for the environmnetal review and BART staff discussions with the City of Fremont staff, awaiting project adoption by the BART Board.
2.	Coordinate Right-of-Way acquisition activities.	2.	Complete Relocation Impact Report by March 1, 1993.	2.	Efforts to prepare Relocation Impact Reports will begin once the project is adopted by the BART Board of Directors and the required properties are identified.
			Complete environmental site assessment (HazMat) for required properties by June 30, 1993.		Environmental Site Assessments for required properties will be performed after project adoption.
3.	Coordinate and manage preparation of agreements with various agencies / entities and utility companies.	3.	Complete agreements with the following agencies / entities and utility companies: * Union Pacific Railroad * Southern Pacific Transportation Co. * City of Fremont * Six utility companies	3.	The Warm Springs Extension staff and Development Planning staff are actively engaged in discussions regarding issues presented in the Environmental Impact Report with the City of Fremont. Other agreements will be initiated after the project is adopted.

4.	Perform Warm Springs Extension value engineering studies.	4.	Complete value engineering study for station design by June 30, 1993.	4.	Value engineering studies for the Warm Springs Extension will be performed during preliminary engineering, if required, after the project adoption.
5.	Provide support and management for assigned Extension Program activities (including insurance, value engineering, BATC's Incremental Work Plan and others as required).	5.	This is an on going activity for the Extension Program. Our objective is to maintain schedules, budgets and technical quality of activities.	5.	The WSX schedule and budget are being impacted by the delay in Certification of the Environmental Impact Report and adoption of the project by the BART Board of Directors. Other program activities are being performed as required.

FY 93 PROGRAM OBJECTIVES

EXTENSION PLANNING

ACTIVITY	MEASURE	PROGRAM PERFORMANCE, July 1992
1. SOUTH AND WEST BAY PROJECTS	1. SOUTH AND WEST BAY PROJECTS	1. SOUTH AND WEST BAY PROJECTS
San Francisco Airport Extension (SFO)	Initiate FEIS/FEIR.	Received and evaluated proposals for SFO Environmental Consultants. Drafted preliminary work plan.
Warm Springs Extension	Support environmental compliance.	Met with City of Fremont staff to discuss outstanding issues. Prepared project Findings and Mitigation Monitoring Plan.
Santa Clara County BART Extension (SCCX)	Provide technical assistance and coordination.	Santa Clara Extension Subcommittee canceled in July.
San Francisco (Geary Corridor)	Provide technical assistance and coordination.	San Francisco Transportation Authority funded study with SF Muni as lead Agency.
2. EAST BAY PROJECTS	2. EAST BAY PROJECTS	2. EAST BAY PROJECTS
Oakland Airport Intermodal Connector Project (OAC)	Complete Tier I - Project Update Study and Tier 2 - Request for Proposals for Turnkey Vendors.	Submitted proposal to FTA for funding grant for application of Suspended Light Rail Technology. Sent Request for Proposals to 150 consulting firms and held pre-bid conference; held monthly Advisory Committee meeting; held two Project Development team meetings; attended Oakland Coliseum Commerce Committee meeting.
West Contra Costa County Extension (WCCX)	Complete Systems Level Planning Studies.	Completed draft Conceptual Engineering Plans and Description for WCCX Alternatives as well as the Transportation Impacts and Environmental Screening Reports. Participated in WCCTAC and WCCTAC-TAC meetings.

ACTIVITY	MEASURE	PROGRAM PERFORMANCE, July 1992
Livermore Extension	Provide technical assistance and coordination.	Met with staff and others regarding I-580 interchange development in Livermore.
San Ramon Valley Corridor	Provide technical assistance and coordination.	Attended Doherty Valley General Plan Amendment Public Hearing.
West Pittsburg/Antioch Extension	Provide technical assistance and coordination.	
3. **ENVIRONMENTAL COMPLIANCE**	3. **ENVIRONMENTAL COMPLIANCE**	3. **ENVIRONMENTAL COMPLIANCE**
Environmental Review	Conduct Mitigation Monitoring Program.	Completed July Mitigation Status forms for CSX & DPX - relevant mitigations are implemented.
Environmental Support	Prepare and implement District Environmental Review Guidelines.	Assisted DPX staff with Strobridge House. Provided input to DPX with Army Corps coordination. Assessed air quality conformity needs for DPX & PAX.
Community Relations	Implement Comprehensive Strategic Community Relations Plan for Extensions.	Completed Community Relations Phase I strategic plan. 50% complete - Phase I Community Relations Operating Policies and Procedures. 70% complete - FY93 Work Directives for Phase I.

FY93 PROGRAMS, ACTIVITIES, OBJECTIVES & PERFORMANCE MEASURES

PROJECT MANAGEMENT

PROGRAM I.

Provide project management and technical support for the new C-2 Car Procurement and the A & B Car Rehabilitation projects.

ACTIVITY	OBJECTIVE	PERFORMANCE MEASURE, JULY 1992
1. Insure the new C-2 rail car procurement is delivered on-time and is consistent with the contractual specifications.	1. Review and approve the following by June 30, 1993: Suppliers, Management Plan, System Assurance Plan, Quality Assurance Plan, Weight Control Programs and completion of design reviews of car body and subsystems.	1. Morrison Knudson has submitted approximately 90% of the required documentation reflecting work underway on quality selection of subsuppliers and related project activities. M.K. intends to deliver cars ahead of schedule.
2. Develop the second phase specification for the A & B Car Rehabilitation project and complete the technical assessment of the alternative vehicle systems.	2. Complete a fleet rehabilitation specification reflecting information learned during the prototype program and the assessment of alternative systems by February 1, 1993. Complete all alternative systems technical assessments by July 1, 1993.	2. The award of the prototype contract is in the E&O committee of the Board of Directors. Report on A.C. propulsion received from Booze-Allen.

PROGRAM II.

Manage the Parking & Access Program, new Automatic Fare Collection (AFC) equipment program, the Universal Ticket Program and the District's Research and Development program.

1. Provide Project management services for the Access Program including parking structures, park & ride lots, intermodals and bus canopies.	1. Complete the Del Norte Intermodal, 50% of the Concord Parking Structure, 40% of the Walnut Creek Parking Structure, and 30% of the Hayward Parking Structure by June 30, 1993.	1. Del Norte Intermodal 10% complete Concord parking structure NTP June 1992, Walnut Creek parking structure ntp June 1992, Hayward parking structure NTP July 1992. All on schedule.
2. Direct competitively negotiated procurement to obtain new Automatic Fare Collection (AFC) equipment.	2. Complete negotiations and award the contract by April 1993.	2. Several addenda issued to the cont r a c t book, and comments were received and incorporated into the proposal evolution procedure. Proposal due date is August 25.

3. *Implement the Innovative Universal Ticket Program for selected bus agencies under*	3. Complete bus system installation and begin	3. Credit/Debit Vendor Preliminary Design

3. Implement the innovative Universal Ticket Program for selected bus agencies under the federally funded Multi-Operator Pass Program.	3. Complete bus system installation and begin revenue service testing on Contra Costa County Transit Association (CCCTA) and BART Express buses by January 1993.	3. Credit/Debit Vendor Preliminary Design Review completed and a front panel mock up delivered. Cubic Faregate Modification hardware development complete and software begun. Bus Ticket Validator production has begun.
4. Develop new technologies to improve transit operational efficiencies	4. Using consultants, develop an advanced automatic train control system, energy storage devices, and improved maintenance diagnostics by October 1993.	4. FTA has given verbal approval for funding BART'S efforts in advanced automatic train control $400,000 and in superconducting magnetic energy storage $350,000.
5. Research new intermodal and environmental technologies.	5. Throughout the year, develop the District's infrastructure to increase patrons' use of clean air vehicles, car pooling and traveler information systems.	5. BART is the lead transit operator in the National Station Car Consortium and serves on the Board of Directors of CALSTART. Both efforts are aimed at the development of consumer electric cars designed for getting to and from transit stations.

PROGRAM III.

Provide project management for the Revenue Collection Enhancement Program.

1. Enhance the cost effectiveness of the fare revenue collection process.	1. Complete the re-engineering study of the Automatic Fare Collection machine maintenance, revenue collection and revenue counting by February 1, 1993.	1. Draft scope complete. Budget estimates for re-engineering received. Presentation to RCEP oversight committee scheduled 8/27-/92.
2. Reduce the time interval between fare collection and bank deposits.	2. Develop a plan to replace the existing IBM cash collection equipment by March 1, 1993.	2. Analysis of alternatives near completion. Preparing RCEP oversight committee presentation.

PROGRAM IV.

Develop the District's 10 Year Capital Improvement Program.

1. Produce the final FY93 Capital Improvement Program (CIP) and draft FY94 CIP.	1. Submit the final FY93 Capital Improvement Program to the Metropolitan Transportation Commission (MTC) by September 15, 1992. Submit the draft FY94 CIP to senior management by December 1992.	1. The draft of the Capital Improvements Program was completed in early July. On July 23, the Board of Directors released the draft for public review and set August 13, as the date for verbal comment before the Board.

PROGRAM V.

Manage Districtwide Capital Projects Reports.

1. Coordinate the FTA Quarterly Progress Report and meetings, the CALTRANS Quarterly Progress Report and the monthly Capital Projects Status Report.	1. Transmit the FTA and CALTRANS Quarterly Progress Reports 5 days before the meetings. Distribute the monthly Capital Projects Status Report 10 working days after financial data is available.	1. Production of the April/June 1992 FTA and CALTRANS reports is on schedule. The monthly Capital Projects Status Report is currently in the EDD approval stage.

FY93 PROGRAMS, ACTIVITIES, OBJECTIVES & PERFORMANCE MEASURES

OFFICE OF MANAGEMENT & BUDGET

PROGRAM I. Development, preparation and control of the District's annual budget, including: (A) programs, objectives and measures, (B) capital labor and (C) operating labor and non-labor requirements. Reporting monthly financial and program objectives performance for the District. Processing of position control requests in accordance with budgeted staffing allocations.

ACTIVITY	OBJECTIVE	PERFORMANCE MEASURE, JULY 1992
1. Prepare District FY 94 annual budget for management approval by 3/31/93 preliminary Board approval by 5/31/93 and final approval by June 30, 1993.	1. Assist District management with defining programs, allocating staff and holding expenses to the limits specified in the Board Budget resolution.	1. Preliminary planning for the FY94 budget has already begun. Staff prepared a special expense control presentation for the General and Executive Managers on 8/12/92.
2. Review & process Personnel, Purchase, and Professional & Technical requisitions, and Operating Work Order Requests.	2. Complete review and forward all approved requests within two days of receipt. Refer requests not within budgeted allocations to Senior Management for resolution.	2. During the month of July, the Operating Budget Division processed 67 personnel requisitions, 84 P&T contracts and 57 other requests all within two days of receipt.
3. Produce Month-End Statistical Budget Reports for department analysis.	3. Issue reports on or before the 10th working day each month.	3. All reports issued on schedule.
4. Monitor the District's actual monthly program performance against planned activities and objectives as set forth in the Approved Budget.	4. Compile monthly performance measures of activities and objectives into data base. Prepare objectives exception report for Senior Management review by 15th working day following close of period.	4. Completed and submitted to senior staff 8/12/92.

PROGRAM II. Budget and fund management of the District's capital programs; monitoring and reporting of Federal and State project expenditures on capital projects. Review and processing of project change orders, preparation of project budgets, capital work plans and grant funding reports.

5. Monitor and control the District's Capital Programs and funding utilizing the Financial Management System (FMS).	5. Issue Cost Performance Report (CPR 710) and exception reports on or before the 10th working day each month.	5. Completed on 8/14.

ACTIVITY	OBJECTIVE	PERFORMANCE MEASURE
6. Prepare and issue all required Federal Transit Administration (FTA) and State project budgets, capital work plans and grant closeout reports.	6. Meet FTA and State deadlines for all project grants and budgets.	6. On schedule.
7. Prepare budgets for all capital projects by fiscal year and total project.	7. Set up capital work orders for contractors, procurements, force accounts and other professional and technical contracts within one week of receipt in 80% of instances.	7. FY 93 approved budgets implemented.
8. Review all purchase requisitions and contracts for fund availability and compliance guidelines.	8. Verify funding availability and compliance with FTA/State guidelines within three (3) days of request in 95% of instances.	8. Met target 90% of time.
9. Support the Capital Investment Committee with sufficient financial and funding information to make informed management decisions.	9. Provide accurate fund balances and a complete active project list for monthly meetings.	9. Provided at CIC meeting.
10. Develop a cost allocation plan with an overhead factor for all projects to increase BART's grant funding eligibility.	10. Obtain an FTA approval for BART cost allocation plan by March, 1993, for FY 94.	10. Draft RFP complete.

PROGRAM III. Financial/performance analysis of the District's programs, financial costing support to labor negotiations, analysis and assessment of current and future power requirements, and special projects in support of BART Senior Management and the Board of Directors.

11. Analyze power rates (availability) and Public Utilities Commission (PUC) actions for District cost impact and pursue any potential savings.	11. Review power bills monthly and approve for payment. Provide written reports for all PUC actions impacting power rates and availability.	11. Power bill approved on time in July.
12. Produce Monthly Management Report (MMR) parts II & IV.	12. Ensure Program/Activities/Objectives narrative, Budget vs Actual expense statistics and graphic presentations are ready for all Board publication dates.	12. July MMR completed on time.

13. Perform financial analysis and program studies that assist the District with identifying where redundant processes can be eliminated, and productivity improvements or favorable financial impact can be gained. Develop corrective recommendations, direct and monitor implementation plans. Also provide financial resources to Employee Relations during union negotiations	13. Utilizing four (4) management analysts, conduct performance & financial analysis of a minimum of eight (8) divisions within the District in FY 93. Support the District with financial costing support to union negotiations as necessary.	13. Financial support for union negotiations is being provided.

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SAN FRANCISCO BAY AREA
RAPID TRANSIT DISTRICT

SHORT - RANGE TRANSIT PLAN

JULY 1993 THROUGH JUNE 2003 (FY 94 - FY 03)

Adopted by the District Board of Directors
on October 28, 1993

SAN FRANCISCO BAY AREA RAPID TRANSIT DISTRICT

SHORT-RANGE TRANSIT PLAN

FISCAL YEARS 1994 - 2003

The preparation of this report has been financed in part through a grant from the United States Department of Transportation, Federal Transportation Administration under the Urban Mass Transportation Act of 1964, as amended and passed through the Metropolitan Transportation Commission. This report has been prepared in conformance with MTC guidelines for Short-Range Transit Plans as revised in March 1990.

The contents of this report reflect the views of BART which is responsible for the facts and the accuracy of the data presented herein. The contents do not necessarily reflect the original views or policy of the U.S. Department of Transportation. This report does not constitute a standard, specification, or regulation.

All projects discussed are subject to state and federal environmental review as required by law. Specific projects and project funding are subject to approval by the BART Board of Directors. Projects that do not yet satisfy these requirements are proposed projects.

October 28, 1993

SAN FRANCISCO BAY AREA RAPID TRANSIT DISTRICT

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LIST OF ACRONYMS

AATC	Advanced Automatic Train Control (system).
ABAG	Association of Bay Area Governments.
AC	Alameda-Contra Costa Transit District.
ADA	Americans With Disabilities Act.
AFC	Automatic Fare Collection (equipment).
APTA	American Public Transit Association.
BART	(San Francisco) Bay Area Rapid Transit District.
CCCTA	Central Contra Costa Transit Authority.
CCS	Central Computer System.
CIP	(BART) Capital Improvement Program.
CPSP	Complimentary Paratransit Service Plan.
CPUC	California Public Utilities Commission.
DAS	(BART) Data Acquisition System.
DBE	Disadvantaged Business Enterprise.
ESP	(BART) Extension Service Plan.
FTA	Federal Transit Administration (formerly UMTA).
GGT	Golden Gate Transit.
ISTEA	Intermodal Surface Transportation Efficiency Act.
MPA	Manuel Padron and Associates.
MTC	Metropolitan Transportation Commission.
MUNI	(San Francisco) Municipal Railway.
NXTGEN	(BART) Next Generation Central Control System.
PERS	Public Employees Retirement System.
PFM	(BART) Passenger Flow Model.
PIP	Productivity Improvement Program.
SAMTRANS	San Mateo County Transit District.
SRTP	Short Range Transit Plan.
STA	State Transportation Assistance.
STEP	(BART) System Throughput Enhancement Plan.
TDA	Transportation Development Act.
UMTA	Urban Mass Transportation Administration (now FTA).

EXECUTIVE SUMMARY

Each year, BART updates its Short Range Transit Plan (SRTP) and Capital Improvement Plan (CIP), reassessing the key assumptions and revising them as necessary to provide a blueprint for the next ten years. This exercise is required by both the Metropolitan Transportation Commission (MTC) and the Federal Transit Administration (FTA) in support of pending capital grant applications. However, even absent these requirements, BART considers the ten-year plan process to be good business practice.

Future financial challenges for the ten-year SRTP operating budget, beginning with the start of Eastbay extension service, have been anticipated for several years. Another major requirement for which the District must secure funding is the rehabilitation of its physical plant including 440 of its 589-vehicle revenue fleet. The new federally mandated Americans with Disabilities Act (ADA) paratransit service represents yet another challenge which BART must fit into its future operating budget. Finally, after 20 years of dynamic growth of ridership, BART demand on its core system is now likely to have matured to the point where future ridership growth rates more closely match slower regional population and employment growth. Revenues linked to this slower growth are unlikely to keep pace with the cost of operating the BART system. For these reasons, the 1993 SRTP/CIP update has been considerably more than a routine exercise.

Capital financial planning and programming guidelines of MTC and FTA call for each transit agency in this region to demonstrate through its ten-year plan that future operating budgets can be balanced, i.e., that the financial capacity needed to sustain future operations, including use of these new grant-funded capital assets, is likely. These guidelines have been in effect for several years. However, in view of the growing demand for capital funds and the failure of fund sources to expand with these needs, MTC has advised all operators that these guidelines will be stringently observed in reviewing each agency's SRTP/CIP submittal.

In anticipation of this review and given the recognized economic challenges facing the organization in the near future, BART management and the Board of Directors spent considerably more time this year in developing the recommended SRTP/CIP financial plan than in previous years. The SRTP and CIP, especially the future financial plan input, were reviewed extensively by the Board of Directors at six meetings of the Administration Committee between August 3rd and September 28th, 1993. During these discussions, there was also public comment on these plans.

BART's proposed service expansion program follows closely the previously defined plan. Critical projects needed to support implementation of shorter peak period headways (more frequent train service) will be completed on the core system as needed prior to implementation of the planned Eastbay rail extensions. As a result, BART riders will see a jump in transbay peak hour capacity from 17 trains currently to 22 trains in December 1995 when BART's fifth route, between Dublin and San Francisco, becomes operational. During this same interval, BART will increase access capacity by 2,000 spaces through construction of three parking garages at Concord, Walnut Creek and Hayward. New extension stations will add 19,800 spaces.

The SRTP is presented in more detail as follows. The Introduction discusses more fully the financial challenges facing BART and highlights needed changes in regional fund allocation policy to help BART deliver future service on the extensions. The main body of the SRTP comprises four chapters. Chapter 1 presents an overview of the BART organization, its mission, major components of BART's capital plant, service description and current fare structure. Chapter 2 contains an evaluation of performance relative to District goals and objectives. Planned service improvements, and programs based on demand projections and latest capital project implementation schedules are identified in Chapter 3. A financial plan supporting BART operations including these service improvements is presented in Chapter 4.

The companion Capital Improvement Program (CIP) presents a complete listing of 250 projects which BART would implement if adequate funding were available. The $4.27 billion cost of the program is, however, beyond the level of funding which can reasonably be assumed to become available over the next ten years. Therefore, in accordance with MTC's development of the Regional Transportation Plan (RTP), BART has divided its capital program into two "tracks." Track One contains those projects which are most critical to the system in terms of rehabilitation, accommodation of patronage growth to 350,000 daily trips over the next decade, and certain new services such as the FastTrak commuter rail program being proposed as a candidate project in the RTP process. BART considers the Track One program to be realistically fundable within the region's constraint for the next ten years. Track Two comprises proposed BART projects which most likely will not be fundable in this time frame without significant new resources becoming available.

Development of the RTP has underscored the funding shortfall facing all operators in this region. BART's situation is not unique. As outlined in detail in Chapter 4 of the SRTP, BART plans to take difficult steps to reduce a significant proportion of its anticipated operating budget shortfall and also to generate new funds with which to fund its rehabilitation program. BART will implement aggressive cost containment efforts, augmenting those already begun in the FY 94 budget. Additionally, BART plans to raise fares on a multi-year basis.

To complement these efforts, BART will need regional support. Specifically, BART will actively seek dedicated funding sources to support new and expanded services. This will include a share of the regional operating assistance program during the start-up of the extension program. A careful review and realignment of regional fund allocation policy are essential. In addition, BART will work closely with MTC to develop permanent new funding sources to support BART as well as other transit operators in the region. This effort is critical if BART, its riders and the communities BART serves, are to realize the expansion of BART capacity called for in this plan.

INTRODUCTION

Shaping BART's Future Today:
The Need for Re-examination of
Regional Transit Policy Issues

OVERVIEW

BART is now in its third decade of service to the Bay Area. We're carrying record numbers of passengers through the four counties and 16 cities which are served by the BART District, while continuing to make progress on our ambitious programs to expand and enhance service to the 74 million annual passenger trips in the region which depend on us. Although we've been faced with unprecedented fiscal challenges in recent years, BART has managed to squeeze every ounce of efficiency possible out of our operating budget. At the same time, we've been able to deliver significant service improvements to our customers.

BART has prepared its annual update of the Short Range Transit Plan (SRTP), a financially-constrained program that forecasts the District's operating and capital needs over the next 10 years. As part of this fiscal planning, BART took a hard look at its performance record and weighed options for meeting projected long-term requirements.

BART IN PEAK PERFORMANCE

BART's record of efficiency in operations and service to patrons is unparalleled in the region. We have avoided fare increases for seven and a half years by containing growth in operating costs to levels well below inflation, attracting new riders, and benefitting from sales tax growth during good economic times. **An independent FY 1990 - 92 performance audit of BART commissioned by the Metropolitan Transportation Commission (MTC) confirmed this when it gave the District exceptionally high marks overall. The report concludes that BART met or exceeded the vast majority of its established standards for service delivery and operational performance, and that it registered favorable performance trends during this period.**

Listed below are highlights of the MTC audit as well as other performance trends monitored by BART. These represent some of our top benchmarks for success.

- BART trains operate on-time a remarkable 96 to 97 percent of the time.

- BART's cost per passenger mile has remained steady over the past five years with only a one percent per year average increase from 21 cents per passenger mile in FY 1987 to 22 cents per passenger mile in FY 1992. The change in the Bay Area Consumer Price Index over the same period was 21.5 percent or about 4.3 percent per year.

- Operating ratio, or the percentage of operating expenses covered by revenues, is an impressive 50 percent, well above other transit operators in the region and 20 percent higher than the national average.

- Since FY 1988, service has grown by 39 percent, from 31 million car miles to 43 million car miles.

- In FY 1988, BART carried 58 million passengers trips. By the end of FY 1993, that number grew to just under 74 million, a 27 percent increase. Average weekday ridership is now in excess of 253,000 passenger trips.

- Despite an aging revenue vehicle fleet which is one of the oldest in the country, BART has increased its key maintenance indicator, Mean Time Between Failure, from 518 car hours in FY 1990, to 929 car hours in FY 1993, a 79 percent increase.

- We've ended each year with a balanced budget and since FY 1989 have been able to reinvest over $40 million in year end operating surpluses in the initial financing of our much needed system rehabilitation and expansion programs.

- To improve customer service BART took a leadership role in working with other transit agencies to develop coordinated joint ticketing programs which make combined bus/BART trips more convenient and affordable. BART Plus, MUNI FastPass, and Translink allow customers to use a single discounted ticket on both the bus and BART.

- We introduced a newer, faster and more efficient schedule with "timed transfers" - the first major schedule change in 12 years.

- We are well underway with our extensions program having committed more than $800 million, and our system rehabilitation program is poised and ready to go.

- We've added 2,650 new parking spaces, and another 2,000 more are under construction.

- We are on the leading edge of R & D breakthroughs in the industry with programs underway in Advanced Automatic Train Control, electric cars, suspended light rail technology, and superconducting magnetic energy storage to name a few.

LOOKING AHEAD, BART FACES A SET OF NEW PROBLEMS - HERE'S WHY

As mentioned above, nearly half of BART's operating budget is paid for by fares, which makes our farebox ratio one of the highest in the nation. The rest of the operating expense budget is covered by 75 percent of the 1/2 cent sales tax revenues dedicated to transit in the three BART counties. (A very small portion of our operating budget also comes from BART property tax and other financial assistance.) **BART receives less than ¼ of 1% (or $500,000) of the $207 million in operating subsidies which are annually distributed by MTC in the Bay Area region. That means that 99.75% of regional subsidy support goes to all other transit systems except BART.**

Given BART's operating sources (fares and sales tax revenues) the District has been hard hit by unfavorable economic trends. **The sustained recession, persistent high unemployment and consumer reluctance to spend have all had a deadly impact on our revenue base. These are the factors that have forced some operators to cut service, lay off employees, increase fares, and worst of all, defer critical maintenance and system investments. Fortunately, BART has so far been able to keep its expense base well in check, stretch operating dollars to keep pace with critical services, and provide enhanced services where possible.** Compared to a few years ago, we now feature faster travel times and evening service timed transfers, improved security and expanded police presence. Our facilities, though aging, are kept clean and neat. In fact, a recent independent public opinion poll gave BART a 75 percent favorable approval rating, the second highest score among the five utilities evaluated.

Aggressive management has also helped the District cope with the impact of the economic downturn by keeping the lid on operating cost increases. Over the last three years, BART's annual operating budgets have only increased by about two percent in the aggregate while inflation rose by 11 percent. From FY 91 - 93, BART's total operating staff decreased from 2,479 to 2,471, while administrative personnel remained steady at 17 percent of total operating employees.

While BART has successfully controlled growth in expenses to levels below the rate of inflation, our historically strong financial picture is weakening. Slowed revenue growth due to the recession combined with extraordinary new capital and operating costs are no match for BART's stringent cost controls alone. There are no longer operating surpluses to contribute to capital. We can no longer afford to divert critically needed revenues to other transit systems. The following two critical issues now upon us significantly impact our financial requirements during the remainder of this decade.

- **System Rehabilitation is Urgently Needed**

  To continue at peak performance, the District must now move swiftly to rehabilitate its aging facilities and fleet. The BART system once represented the cutting edge of transit technology. But twenty years have dulled that edge. Each BART car has logged more than one million miles and nearly one billion people

have passed through the system's faregates, ridden the escalators, and waited at weather-worn stations. Our tracks, switching equipment, and electronic controls have supported more than one billion miles of safe operation. BART is no spring chicken. As a middle-aged transit agency, rigorous check-ups and a little minor surgery are required to keep BART in tip top shape.

Today, BART carries more than 253,000 passenger trips each week day, and we expect to carry 40 percent more once the Extensions are completed in a few years. But, the combination of increasing patronage and aging equipment could cripple BART's reliability. It is essential that we accelerate the system rehabilitation program now before the spiraling effects of age and delayed reinvestment take their toll. **Even the recent MTC audit of BART strongly recommended that BART advance the system rehabilitation program, which they describe as many years behind that of comparable transit agencies around the country.**

BART's system rehabilitation program carries a hefty price tag: at least $1 billion over ten years. Nevertheless, neither BART nor the region can afford to defer the business of ensuring the safety and reliability of the BART system, as well as the protection of its substantial investment in BART, now valued at $7 - $8 billion.

- **New and Expanded Services are Being Delivered**

As if system rehabilitation alone weren't enough, BART is also faced with the need to identify a new source of revenue to support operating service for our $2.5 billion extensions program. We expect to be operating our first portions of this expansion to the basic BART system as early as July, 1995. As noted above, patron fares are only expected to cover half our operating costs. As previously stated, the other half of our revenue source for our basic system operation is made up primarily by the ½ cent sales tax revenues. The problem is that BART receives a fixed amount of sales tax revenue in each county. **As BART raises the level of service in each county, by extending service to the new areas, the sales tax revenue source remains fixed at levels in existence prior to the opening of the new service. Therefore, this presents a significant financial problem until BART can absorb these expanded service levels into its core system over time.**

When the extensions come on line, BART's core system will have grown by 50 percent or roughly 35 miles. Yet, our revenue sources necessary to operate service will remain stagnant and may even decline if the recession persists.

Another new and significant factor in BART's projected operating budget deficit is the cost of complying with the new Americans with Disabilities Act (ADA) mandates. BART is required to provide, in cooperation with other transit agencies, comparable paratransit service to those who cannot access the BART

system. BART is obligated to provide this service, estimated at over $4 million a year, even though new funds will not be made available to the District for this purpose. BART has worked hard to make the system accessible to all people, and fully supports implementation of the ADA requirements. However, we must be provided the resources with which to carry out this important mandate.

WHAT BART IS DOING TO MEET THESE CHALLENGES

First of all, BART has vigorously pursued and will exhaust every viable "belt-tightening" strategy to ensure that we remain an efficient and well-run organization. We will leave no stone unturned as we push for increased operational efficiencies in both the short-term and the long-term. The recently adopted FY 1994 operating budget is an example of this. **The District successfully closed a $7.5 million operating deficit for FY 1994 in large measure by:**

- Instituting a $1.5 million level of reductions in staffing and administrative expenses.
- Reducing the use of outside consultants;
- Reducing power costs by $1 million through vigorous pursuit of favorable rate adjustments;
- Implementing service adjustments for weekend and express bus contract service with minimal impact on convenience to our riders.

Over the long-term, BART is planning for a number of further cost-cutting measures as part of the SRTP deficit reduction package. Key elements include:

- Adopting a two-percent across-the-board reduction in all expenses through further belt-tightening and productivity increases (equivalent to approximately $8 million in FY 1995 cost reductions).
- Potential reduction of special fare discounts to more reasonable levels of discount.
- Changes to the FastPass revenue sharing program for service in San Francisco.

To recap, despite a strict level of control over expenses, BART is confronted with flat revenues, sharply escalating capital costs due to the need to rehabilitate the system, and unfunded operating costs associated with the start-up of the extensions and ADA compliance. BART has implemented aggressive cost containment measures and, in spite of these tough economic times, has managed to provide service improvements to our customers. However, the bottom line is that we are left with significant funding shortfalls that cannot be ignored. After exhausting internal efficiencies and stringent cost controls, BART must look for new ways to raise additional revenues as well as look to others for assistance.

WHAT BART NEEDS FROM OTHERS

- **Dedicated Funding Source to Support New and Expanded Services**

  BART applauds Congress' historic step in enacting ADA which extends mobility and accessibility rights to persons with disabilities. BART's philosophy from the beginning has been to serve all citizens of the Bay Area and so the system was built to be accessible. As a result, few capital retrofits will need to be made, but the comparable paratransit service required under ADA will cost the District over $4 million a year. **BART is committed to championing the drive to secure an ADA fund source. We are eager to obtain the resources with which to carry out our obligation.**

  BART will also need help from the region for a limited period of time, to cover the start-up operating costs of the extensions while we make plans for long-term self-sufficiency. Once service begins on the extensions, BART must begin to receive a share of transit operating subsidies currently allocated to all other regional operators. **In order to provide for a transitioning of the costs of our Extensions Program into our baseline budget, BART will require a share of the regional operating assistance program during the early years of start-up operations.**

  BART believes that a reallocation of the $207 million in annual operating subsidies to provide a more equitable level of funding for BART should not be an impossible task. BART has weathered the storm longer than others without benefit of a multitude of operating subsidies. Not only has BART not received these subsidies, but we have subsidized AC Transit and MUNI in the past under an MTC required transfer payment program, and we are currently required to divert $5.5 million for this purpose. In addition, 25% of the ½ cent sales tax or $36 million is annually allocated to AC Transit and MUNI for their use. **The region can no longer afford to drain a financially strong transit agency to the point of insolvency, but instead, must look to equitable revenue sharing policies and more appropriately MTC must expand the amount or financial support available to all transit systems in this region.**

  BART will be working closely with MTC to develop permanent funding sources to support BART as well as the other transit operators in the region. Among the possibilities to be explored include additional funding from bridge tolls and gas taxes, as well as return to BART of the 25 percent of the 1/2 cent sales tax. Further, the General Obligation bonds which supported the original construction of the system, paid from a property tax assessment in the three county BART District, are defeased in FY 1999. We will be exploring the feasibility of maintaining a comparable level of ongoing funding for BART after the bonds are paid.

- **Fair Share Contribution to System Rehabilitation Financing**

  The magnitude of BART's system rehabilitation program makes it imperative that multi-level funding commitments be secured. The responsibility for maintaining the integrity of the BART system must be borne by the District as well as from appropriate local, state, and federal capital funding programs. After all, as the regional rail operator, BART is a shared asset and a shared responsibility. Congestion management agencies in the BART counties, MTC, the California Transportation Commission and the Federal Transit Administration all have a role to play. **BART is prepared to pay its fair share of the system rehabilitation program. But, it would be unrealistic and unfair to expect BART patrons, through fare revenues generated by the District, to shoulder the entire amount of the system rehabilitation program.** BART will work with all parties to help create a multi-faceted funding program to supplement the revenues that BART expects to be able to contribute.

WHAT WE NEED TO DO TO SUPPORT OURSELVES

BART approaches the task of generating additional revenues from our customers only as a last resort. Furthermore, we do so to cover the critical capital needs of the rehabilitation program and possibly for funding shortfalls necessary to support BART's new and expanded service levels detailed in this SRTP not to expand current labor costs. The District has maximized cost efficiencies and controlled growth in expenses, but must now, after seven and a half years, face the prospect of generating new revenues. Even the MTC audit found that BART's farebox ratio had declined slightly over the three year period as inflation ate into this revenue efficiency standard.

BART can expect its share of the $1 billion system rehabilitation program to be about one-third of the total or approximately $300 million. The balance will have to come from regional, state and federal matching funds. Generally, these matching funds aren't available until the local agency puts up its share.

Options for generating additional revenues will be evaluated and discussed in an open forum with ample opportunity for public input. The Board of Directors will strive to achieve the delicate balance between raising revenues to reinvest in the system and encouraging ridership growth. We must be careful not to create disincentives to transit use as we move forward with this process. BART is perhaps the region's best hope for getting people out of their cars and into congestion-free, environmentally-friendly transit. We intend to maintain and improve upon our position as the region's trunk-line transit system. To support these objectives, our riders, the users of the system, may need to help provide us with our share of the necessary resources.

CHAPTER 1

BART ORGANIZATION AND SYSTEM OVERVIEW

The San Francisco Bay Area Rapid Transit District was created by the California State Legislature in 1957, in response to Bay Area growth and transportation needs. Initial efforts focused on establishing the organization for the purpose of fulfilling the BART District charter, which calls for the construction, operation, and maintenance of a rapid transit system in the Bay Area. Voter approval, in 1962, of a $792 million general obligation bond issue in San Francisco, Alameda, and Contra Costa counties provided the initial funding base and authorization to begin construction of the 71 mile system: the first new rail transit system to be built in the United States in over 60 years and the first rail system to make large-scale use of computer technology.

The District is governed by a Board of nine publicly elected, Directors, each representing the voters in one of 9 election districts within the three-county District. Board meetings are normally conducted twice each month, are subject to prior notice, and are open to the public. Directors serve on various standing and special committees, to deliberate and make recommendations to the full Board. These meetings are also subject to prior public notice and are open to the public.

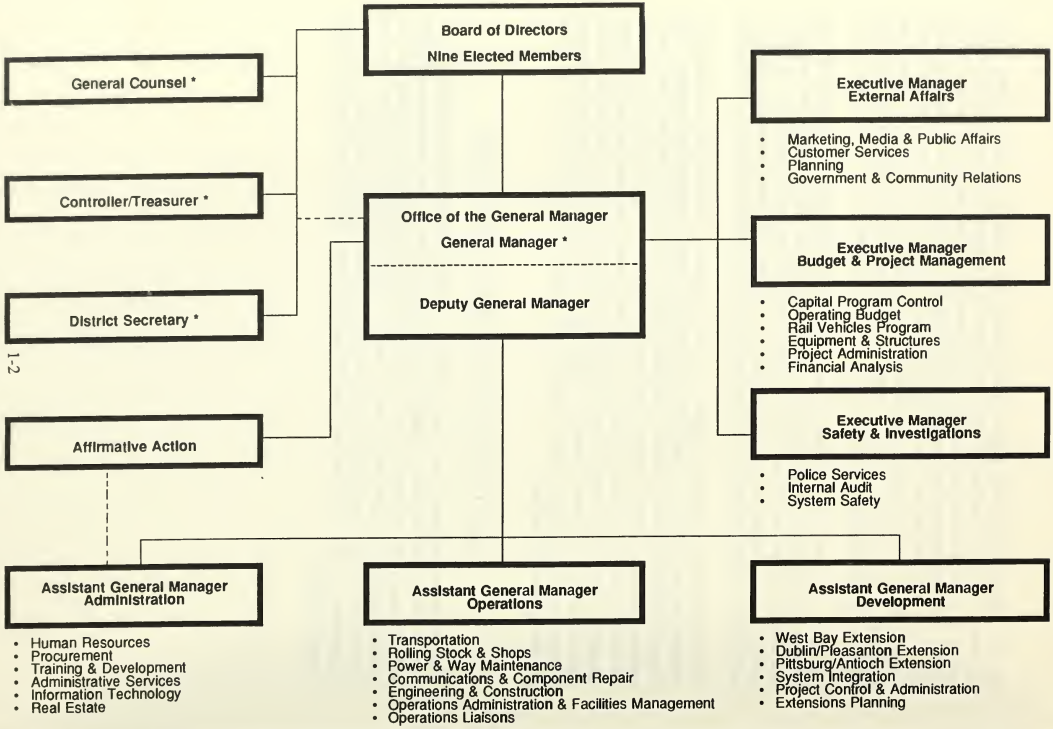
The organization at the staff level (Figure 1-1, BART Organization Chart) reflects a management structure that has evolved to effectively carry out the District's programs and policies. The General Manager, General Counsel, Controller/Treasurer, and District Secretary are Board-appointed officers and report directly to the Board of Directors. Other executive staff members consist of the Deputy General Manager, three Assistant General Managers, and three Executive Managers. These seven executive staff members and the Department of Affirmative Action report directly to the General Manager. Reporting to the executive staff are 34 Department Managers and their respective staffs. BART's total budgeted workforce for FY 93 was 2,774 full-time equivalent positions.

MAJOR COMPONENTS OF BART'S CAPITAL PLANT

The 1962 general obligation bond issue provided funding for the basic BART system (Figure 1-2, System Map) which included: 71 miles of double-mainline track, three maintenance facilities and associated yards, 450 vehicles (ten of which have been retired from the operating fleet), an administration/central control facility, and 34 stations. Capital improvements made over the years have added to this inventory base and include 150 more cars, the Daly City Yard and Maintenance Facility, the KE subway track through downtown Oakland, and a new central train control computer.

Figure 1-1

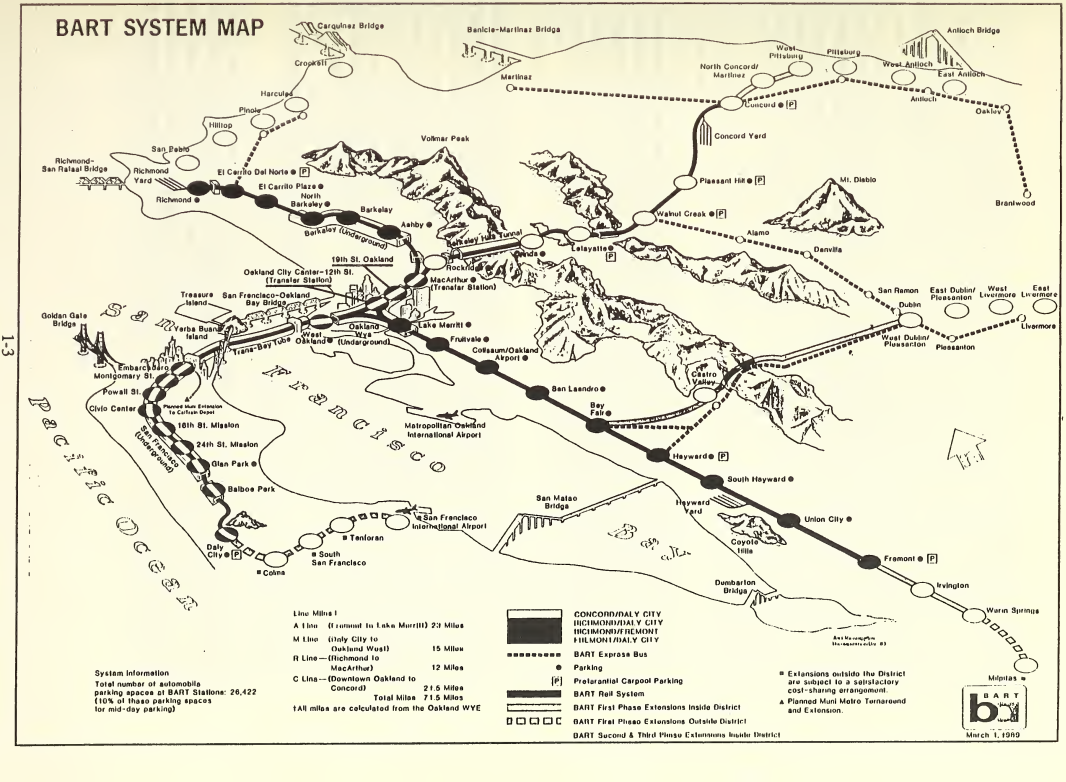
BART ORGANIZATION CHART



* ***Board appointed officer.***

Figure 1-2

Figure 1-2


BART SYSTEM MAP
Carquinez Bridge
Crockett
Benicia-Martinez Bridge
Martinez
Antioch Bridge
West Pittsburg
Pittsburg
North Concord/ Martinez
West Antioch
East Antioch
Antioch
Oakley
Concord
Concord Yard
Pleasant Hill
Walnut Creek
Mt. Diablo
Alamo
Danville
San Ramon
Dublin
East Dublin/ Pleasanton
West Livermore
East Livermore
Livermore
West Dublin/ Pleasanton
Pleasanton
Brentwood
Harcules
Pinole
Hilltop
San Pablo
Richmond-San Rafael Bridge
Richmond Yard
El Cerrito Del Norte
El Cerrito Plaza
Richmond
North Berkeley
Berkeley
Ashby
Berkeley Hills Tunnel
Downtown Berkeley
Rockridge
Lafayette
Orinda
Volmar Peak
19th St. Oakland
Oakland City Center-12th St. (Transfer Station)
MacArthur (Transfer Station)
Treasure Island
San Francisco-Oakland Bay Bridge
Golden Gate Bridge
Yerba Buena Island
Transbay Tube
West Oakland
Oakland Wye
Lake Merritt
Fruitvale
Coliseum/Oakland Airport
Castro Valley
San Leandro
Bay Fair
Hayward
South Hayward
Hayward Yard
Union City
Fremont
Irvington
Warm Springs
Coyote Hills
Dumbarton Bridge
San Mateo Bridge
Embarcadero
Montgomery St.
Powell St.
Civic Center
Planned Muni Extension To Civic Center
16th St. Mission
24th St. Mission
Glen Park
Balboa Park
San Francisco (Underground)
Daly City
Colma
South San Francisco
Tanforan
San Francisco International Airport
Matropolitan Oakland International Airport
SAN FRANCISCO
PACIFIC OCEAN
SAN FRANCISCO BAY
System Information
Total number of automobile parking spaces at BART Stations: 26,422 (10% of these parking spaces for mid-day parking)
Line Miles †
A Line (Fremont to Lake Merritt) 23 Miles
M Line (Daly City to Oakland West) 15 Miles
R Line (Richmond to MacArthur) 12 Miles
C Line (Downtown Oakland to Concord) 21.5 Miles
Total Miles 71.5 Miles
†All miles are calculated from the Oakland WYE
CONCORD/DALY CITY
RICHMOND/DALY CITY
RICHMOND/FREMONT
FREMONT/DALY CITY
BART Express Bus
Parking
P Preferential Carpool Parking
BART Rail System
BART First Phase Extensions Inside District
BART First Phase Extensions Outside District
BART Second & Third Phase Extensions Inside District
■ Extensions outside the District are subject to a satisfactory cost-sharing arrangement.
▲ Planned Muni Metro Turnaround and Extension.
Milpitas
BART
March 1, 1989

Track and Right-of-Way

BART is a third-rail, 1,000 volt DC, electrically powered railway. The rail right-of-way is fully protected and has no grade crossings. BART's rail system consists of 71 miles of continuously welded, double-mainline, 66 inch gauge track (142 miles, bi-directional). Approximately 20 miles of double-mainline track are in subway, 24 miles are elevated, and 27 miles are at grade. There are 54.5 miles of additional single track located in yards, sidings, and other locations. All but 3.2 miles of this latter amount are at grade, and include leads and sidings located in the four maintenance yards. The remaining 3.2 miles largely consists of the KE track through downtown Oakland which is 1.8 miles in subway. A special track geometric vehicle is used to analyze the running rails and electric third rail. Tracks are routinely inspected and maintained to insure structural integrity and a smooth operating surface. Trackwork is scheduled and performed during non-revenue hours.

Maintenance Yards

Routine preventative maintenance work on transit vehicles is carried out in accordance to specific schedules at four facilities, three of which are located in the East Bay (at Concord, Hayward, and Richmond), and one in the West Bay (at Daly City). In addition to scheduled maintenance functions, BART's Hayward shop also handles accident damage repairs. A fifth maintenance facility located between Lake Merritt and Fruitvale Stations (Oakland Shops) provides support to buildings and grounds and equipment other than rail vehicles.

Revenue Vehicles

BART owns three types of revenue vehicles: control equipped A- and C-cars, and non-control equipped B-cars. A- and B-cars are BART's first generation vehicles, manufactured between 1971 and 1975. C-cars constitute BART's second generation fleet and were manufactured between 1987 and 1990. Control equipped A-cars are 75 feet long by 10.5 feet wide, have 72 seats, and can only be used as a lead or trail vehicle on each train. Non-control equipped B-cars also have 72 seats, are 70 feet by 10.5 feet, and can only be used as mid-train vehicles. Control equipped C-cars have 64 seats (plus dedicated spaces for passengers in wheelchairs), are 70 by 10.5 feet, and can be used as lead, mid-train, or trail vehicles. Trains are operated from the lead A- or C-car. Train movements are automatically controlled by computers located along the right-of-way. System train supervision is provided by BART's train control computer at BART Central, located in the Lake Merritt Administration Building, in downtown Oakland. Train operators aboard each train can override the automatic system should the need arise.

BART's current fleet of 589 vehicles includes 136 A-cars, 303 B-cars, and 150 C-cars. One additional A-car is used as an engineering test vehicle. Permissible train lengths range from three to ten cars. [The three-car minimum train length is a California Public Utilities Commission requirement. The ten-car maximum length corresponds to station platform lengths.] Resulting capacity is between 192 and 720 seated passengers for three and ten-car trains, respectively.

Vehicle performance specifications include a maximum 80 mile per hour speed. Revenue service is based on a 70 mile per hour maximum speed, with the 80 mile per hour capability reserved for maintaining schedule adherence.

Stations and Parking

The system currently has 34 stations, 14 of which are in subway, 13 elevated, and 7 at grade. All stations have platform lengths of approximately 700 feet to accommodate BART's maximum train length of ten cars. Stations are spaced between one half to one mile apart, within and adjacent to San Francisco, Oakland, and Berkeley downtown areas, and two to four miles apart in suburban areas.

Stations are fully accessible and have elevators and escalators, in addition to stairways, linking their various levels to streets, connecting local transit, and parking areas. In downtown San Francisco and Oakland, special subway entrances provide direct access between stations and retail establishments.

Automatic fare collection equipment is located in each station to vend and process passenger tickets. Automated train destination signs on the platform level of each station provide visual displays of an arriving train's destination and other information. All stations have special displays on the platform and concourse levels to provide additional information with regard to train schedules, local area destinations, connecting transit, and other information to assist BART riders. A public address system linked to BART headquarters is used to provide additional passenger information. This system is also used locally at each station by station agents.

Passenger amenities include restrooms at each station. Depending upon location, station access facilities include dedicated bus lanes and berths, bus stop shelters, transit information centers, regional transit ticket outlets, transfer dispensers, bicycle racks, and parking.

Parking is an important feature at suburban stations, where a majority of BART riders arrive by auto. As of August 1993, BART's parking inventory consisted of 30,857 free spaces at 23 stations and 205 spaces at Lake Merritt Station, at a daily charge of 25¢. Free parking is also provided at three BART Express Bus, park-ride lots, which contain a total of 618 spaces (Figure 1-3, Parking Space Inventory).

Administration/Central Control Facility

BART's administrative headquarters are located at 800 Madison Street in downtown Oakland, above Lake Merritt Station. This facility also houses BART's central train control computer. While trains are automatically controlled by wayside equipment located along the trackway and stations, the central train control computer at BART headquarters provides overall, systemwide supervision of train movements. BART Central is an around-the-clock operation. Train controllers and other BART certified personnel, located at Central, monitor train movements and can override the automatic system should the need arise. A two-way radio system provides voice

Figure 1-3

BART PARKING SPACE INVENTORY
SPACES ADDED DURING FISCAL YEAR 1993

LINE AND STATION	NUMBER OF BART-OWNED PAVED PARKING SPACES AS OF JUNE 1992	PLANNED FOR FY 93	ADDED IN FY 93	AS OF JUNE 1993
SAN FRANCISCO LINE				
DALY CITY	2,228	0	0	2,228
GLEN PARK	55	0	0	55
WEST OAKLAND	424	0	0	424
SUBTOTAL	**2,707**	**0**	**0**	**2,707**
FREMONT LINE				
FREMONT	2,494	0	0	2,494
UNION CITY	1,218	0	0	1,218
SOUTH HAYWARD	1,307	0	0	1,307
HAYWARD	1,061	0	0	1,061
BAY FAIR	1,903	0	0	1,903
SAN LEANDRO	1,295	0	0	1,295
COLISEUM	1,059	0	0	1,059
FRUITVALE	1,103	0	0	1,103
LAKE MERRITT *	205	0	0	205
SUBTOTAL	**11,645**	**0**	**0**	**11,645**
RICHMOND LINE				
RICHMOND	796	0	0	796
EL CERRITO DEL NORTE	2,516	0	0	2,516
EL CERRITO PLAZA	795	0	0	795
NORTH BERKELEY	840	0	0	840
ASHBY	626	0	0	626
MACARTHUR	609	0	0	609
SUBTOTAL	**6,182**	**0**	**0**	**6,182**
CONCORD LINE				
CONCORD	1,975	0	0	1,975
PLEASANT HILL	3,245	0	0	3,245
WALNUT CREEK	1,518	0	0	1,518
LAFAYETTE **	1,521	0	0	1,521
ORINDA **	1,380	0	0	1,380
ROCKRIDGE **	889	0	0	889
SUBTOTAL	**10,528**	**0**	**0**	**10,528**
RAIL TOTAL	**31,062**	**0**	**0**	**31,062**
EXPRESS BUS PARK/RIDE				
NORTH CONCORD/MARTINEZ	538	0	***(538)	0
WEST PITTSBURG	213	0	0	213
EAST ANTIOCH	252	0	0	252
WEST LIVERMORE	153	0	0	153
EXPRESS BUS TOTAL	**1,156**	**0**	**(538)**	**618**
SYSTEM GRAND TOTAL	***32,218***	***0***	***(538)***	***31,680***

* A $0.25 parking charge is in effect at Lake Merritt Station. All other BART-owned parking is free.

** Spaces at Lafayette, Orinda, and Rockridge stations are subject to special parking controls.

*** The North Concord/Martinez lot was closed in December 1992 to accomodate construction of the rail extension to North Concord.

communication between BART Central and all train operators. A separate telephone system provides voice communication to station agents. Remote cameras, located at key points, allow BART Central personnel to visually monitor train movements and station activities.

BART SERVICE DESCRIPTION

Rail service is provided between the hours of 4:00 a.m. and 1:30 a.m., Monday through Friday, 6:00 a.m. to 1:30 a.m. on Saturdays, and 8:00 a.m. to 1:30 a.m. on Sundays and major holidays. Closing times for individual stations are coordinated with the schedule for the last train departure beginning approximately at midnight (Figure 1-4, BART Rail Headways and Hours of Service). The following is a description of BART rail service. BART Express Bus service is coordinated with the rail schedule. A description of express bus service is presented in a separate section following that for rail.

Early Morning Rail Service - Weekdays

Weekday service begins at approximately 4:00 a.m., with the first four train dispatches of the day from each of the system's four terminal stations. These trains operate on the Concord-Daly City and Fremont-Richmond routes. This service configuration is also known as *two-route* or, *X service*, and requires a transfer in downtown Oakland for trips which at other times are served by the Fremont-Daly City and Richmond-Daly City routes. A second set of four trains on the Concord-Daly City and Fremont-Richmond routes is dispatched 30 minutes later at approximately 4:30 a.m. At approximately 5:00 a.m., service transitions to four-route, weekday base service, which continues until the start of morning peak service at about 6:00 a.m. Base daytime rail service on weekdays consists of 15-minute headways on each of the four routes in both directions: the three Transbay routes between Daly City and Concord, Fremont, and Richmond, and the East Bay route between Fremont and Richmond.

Peak Period Rail Service - Weekdays

Peak period service corresponds to weekday commute hours, typically between 6:00 a.m. to 9:00 a.m. and 4:00 p.m. to 7:00 p.m. Monday through Friday. During these times, trains are operated at closer headways than during base service, in order to provide sufficient capacity to meet higher home-to-work travel demand. During the morning commute, there are 43 trains in operation systemwide, providing service at an average minimum scheduled headway of 3.5 minutes, during the peak one hour through San Francisco and downtown Oakland. This same minimum headway service is operated during the afternoon commute period. Peak service currently requires 453 vehicles, 406 online and 47 additional cars used for transition (yard moves) and spare trains. All Transbay trains are at their 10-car maximum during peak commute hours.

Figure 1-4

BART RAIL HEADWAYS AND HOURS OF SERVICE *

	TRANSBAY ROUTES			EAST BAY	CITY CENTER LINE SEGMENT	
	Concord-Daly City	Fremont-Daly City	Richmond-Daly City	Fremont-Richmond	San Francisco	Downtown Oakland
HEADWAYS (min)						
WEEKDAY						
Peak Hour	7.5	12.0	15.0	15.0	3.5	3.5
Midday	15.0	15.0	15.0	15.0	5.0	5.0
Night	20.0	*	*	20.0	20.0	10.0
SATURDAY						
Daytime	20.0	20.0	20.0	20.0	6.7	6.7
Night	20.0	*	*	20.0	20.0	10.0
SUNDAY						
All Day	20.0	*	*	20.0	20.0	10.0
SERVICE HOURS (time)						
WEEKDAY						
First Train lv	0400	0441#	0454#	0354	0411	0430
Last Train ar	0120	2115#	2053#	0126	0109	2452
SATURDAY						
First Train lv	0605	0610	0605	0603	0600	0607
Last Train ar	0120	2020#	1957#	0126	0109	2452
SUNDAY						
First Train lv	0804	*	*	0800	0815	0811
Last Train ar	0120	*	*	0126	0107	2452

** NOTE: Chart reflects information as of September 25, 1993, when Saturday service start times were slightly adjusted. An asterisk (*) denotes a route not in service during the identified time period. A pound symbol (#) indicates that earlier and/or later service is available on other routes. In both instances (* and #), travel is accommodated on other routes with one transfer in downtown Oakland.*

Base Rail Service - Weekdays, Daytime

The transition to return to base service begins during the last hour of the morning peak, at approximately 8:00 a.m. Base service continues until approximately 3:00 p.m., when afternoon commute dispatches begin. Base weekday service requires 35 trains operating on the system and results in the following bi-directional service frequencies: nine trains an hour between Daly City and Concord and Daly City and Fremont, nine trains an hour between Richmond and Fremont and eight trains an hour between Daly City and Richmond. Trains stop at all stations along their designated route. The systemwide average speed for revenue service, including stations stops, is 35.2 miles per hour. As for all service periods, trains are sized to accommodate demand, in compliance with the load factor standards established by the Board of Directors.

Base Rail Service - Nights

Base night service consists of bi-directional 20-minute train headways on two routes: Concord-Daly City and Fremont-Richmond. This two-route, X service requires a transfer in downtown Oakland for trips which at other times are served by the Fremont-Daly City and Richmond-Daly City routes. BART's train schedule allows transfers with a minimum of passenger waiting time, via timed train meets at 12th Street and MacArthur stations in Oakland. Base night service requires 16 online trains, begining at approximately 7:00 p.m., with four terminal-station dispatches (two on each route in both directions). The last four terminal-station train dispatches occur just after midnight, ending their runs at approximately 1:30 a.m.. Individual station closings are coordinated with the schedule for these trains, as they pass through the stations.

Base Rail Service - Weekends and Holidays

Base daytime Saturday service consists of 28 trains online, operating at 20-minute headways on all four routes between the hours of 6:00 a.m. and 7:00 p.m. After 7:00 p.m., base night service is in effect until closing. Base Sunday rail service consists of 16 trains online, operating at 20-minute headways on a two-route, X service schedule (the same as Base Night Service) between the hours of 8:00 a.m. and closing. Except for minor schedule and train length modifications, BART provides the following service schedules on holidays:

Celebrated Holiday	Schedule
New Years Day	Sunday
Martin Luther King Day	Weekday
Presidents' Day	Saturday
Memorial Day	Saturday
July 4th	Saturday
Labor Day	Saturday
Columbus Day	Weekday
Veterans' Day	Weekday
Thanksgiving	Sunday
Day After Thanksgiving	Weekday
Christmas	Sunday

Special Rail Service

BART service is coordinated with major Bay Area events. Additional service for special events is provided in three ways. The first is by lengthening regularly scheduled trains less than 10 cars long. This method works well during offpeak times, when nearly all trains are less than 10 cars in length, and when BART patron demand to a particular event does not warrant higher train frequencies. For events which require greater capacity and/or frequency of service, additional trains are placed in operation. This second method of adding service and capacity is typically implemented when the demand for BART associated with an event is sharply peaked, such as following the end of a baseball game, rock concert, or other event having a large attendance. The third way BART accommodates service to special events is to provide revenue operations at times when the system is normally closed, such as an early-Sunday morning opening as is done for the annual Bay-to-Breakers foot race in San Francisco. Examples of special BART service include: extended hours of operation on New Year's Eve; longer and more trains to serve athletic/special events at the Oakland Coliseum, U.C. Berkeley, and San Francisco Civic/Convention Center; special early Sunday morning opening and express trains to Bay-to-Breakers in San Francisco, and Shoppers' Specials trains each Sunday between Thanksgiving and Christmas.

Express Bus Service

As an interim measure until rail extensions come online, BART provides express bus service on 12 routes within five major travel corridors in Alameda and Contra Costa Counties (Figure 1-5, BART Express Bus Headways and Hours of Service). All express bus service is coordinated with BART rail schedules, and is provided under contract with Laidlaw Transit, Inc. A total of 618 free parking spaces are currently provided at three express bus park-ride lots, which are located on future extension station sites: West Pittsburg (213 spaces), East Antioch (252 spaces), and West Livermore (153 spaces). The former North Concord/Martinez Express Bus lot (538) spaces was closed in December 1992 to accommodate construction of the rail extension to North Concord, currently in progress.

BART Express Bus Corridors

1. I-80 between El Cerrito del Norte Station and Pinole, Hercules, and Rodeo,
2. SR-4 between Concord Station and Martinez,
3. SR-4 between Concord Station and Pittsburg, Antioch, and Brentwood,
4. I-680 between Walnut Creek Station and Dublin and Pleasanton,
5. I-580 between Bay Fair/Hayward Stations and Dublin, Pleasanton, and Livermore.

Figure 1-5

BART EXPRESS BUS HEADWAYS AND HOURS OF SERVICE

An Asterisk (*) Denotes No Service Provided During Time Period Shown

	LIVERMORE VALLEY & BAY FAIR & HAYWARD STATIONS				EASTERN CONTRA COSTA & CONCORD STATION				DUBLIN & WALNUT CK STA		RODEO & DEL NORTE	
	U	UL	UP	UX	PE	PE1	P2X	ME	D	DX	J	Q
HEADWAYS (minutes):												
WEEKDAY												
Peak Hour	30	30	20	30	30	30	*	30	*	30	30	30
Midday	30	60	*	*	60	60	*	*	*	60	30	*
Night	60	*	*	*	*	*	60	60	*	60	40	*
SATURDAY												
Daytime	30	*	*	*	*	*	60	*	40	*	30	*
Night	60	*	*	*	*	*	60	60	60	*	40	*
SUNDAY												
Daytime	60	*	*	*	*	*	60	60	60	*	40	*
Night	60	*	*	*	*	*	60	60	60	*	*	*
SERVICE HOURS (time):												
WEEKDAY												
First Bus lv	0525	0446	0452	0535	0512	0418	2030	0535	*	0437	0451	0518
Last Bus ar	0041	2000	1929	1937	2107	2148	0203	0050	*	0025	0049	2056
SATURDAY												
First Bus lv	0605	*	*	*	*	*	0600	0428	0607	*	0656	*
Last Bus ar	0023	*	*	*	*	*	0203	0043	0111	*	0029	*
SUNDAY												
First Bus lv	0840	*	*	*	*	*	0700	0926	0824	*	1012	*
Last Bus ar	0023	*	*	*	*	*	0200	0025	0111	*	1926	*

FARES

BART fares are computed by a distance-based formula, with surcharges for Transbay service, Daly City Station origin or destination (Daly City Station serves San Mateo County, which is outside the District), and a speed premium (Figure 1-6, BART Fare Components and Ticket Prices). The base fare is currently 80¢ for the shortest trips and trips within downtowns and other local areas. The highest fare is currently $3.00, for the 36-mile Transbay trip between Fremont and Daly City (Figure 1-7, BART Fares and Travel Times). The average rail passenger fare, including discounts, in FY 93 was $1.37.

BART provides a 90% discount to children between the ages of 5 and 12 (children under 5 can ride free), to persons 65 and over, and to persons with a qualifying medical condition or mobility impairment. Those not qualifying for these discounts may purchase a $32 high-value ticket for $30, a savings of 6.25%.

Additional discounts are provided in conjunction with travel on other transit systems connecting with BART. The BART/MUNI Fast Pass allows unlimited use of San Francisco Municipal Railway services and BART within the City of San Francisco. As of August 1, 1993, the price of the monthly Fast Pass is $35. The premium BART/Muni Fast Pass available for $45 as of October 1, 1993 is also good on BART. Two other fare instruments are BARTPlus and Premium BARTPlus, which combine a BART ticket with a pass valid for one-half month on BART, BART Express Bus and other Bay Area transit systems which serve BART rail stations. An additional multi-operator fare instrument is TransLink, a joint ticket for BART, BART Express Bus, and Contra Costa County Transit Authority (CCCTA), providing transfer discounts. Translink tickets may be purchased in two denominations; a $32 value for $30 and an $80 value for $75, a savings of 6.25%. An additional discount is provided by the *last-ride bonus*, which, with at least 5¢ remaining on the ticket, allows the completion of a trip of any length on BART, BART Express Bus, or CCCTA. Features of these and other fare instruments are summarized in Figure 1-6, BART Fare Components and Ticket Prices.

Figure 1-6
BART FARE COMPONENTS AND TICKET PRICES
AS OF AUGUST 1993
Notes Appear On Following Page

TRIP LENGTH:	Up to 6 miles	80¢
	Between 6 and 14 miles [1]	92¢ + 6.9¢/mile
	Over 14 miles	$1.47 + 4.1¢/mile
SURCHARGE:	Transbay	45¢
	Daly City [2]	52¢
SPEED PREMIUM:	Charge differential for faster or slower than average trips, based on scheduled travel time	±2.5¢/minute
RESULTING FARES:	Range [3]	80¢ to $3.00
	Average fare (before discounts) [4]	$1.58
	Average fare paid (after discounts) [4]	$1.37
RAIL FARE DISCOUNTS & SPECIAL FARES: [5]	Children under 5	Free
	Children 5 through 12 (90% discount)	$1.60 ($16 value)
	Persons 65 and over (90% discount)	$1.60 ($16 value)
	Persons with qualifying disability (90% discount)	$1.60 ($16 value)
	Regular adult (6.25% discount)	$30 ($32 value)
	Excursion (entry/exit, same station) [6]	$2.60
STORED VALUE JOINT TICKET: [7]	TransLink (6.25% discount and last ride bonus)	$30 or $75 (2 denom) ($32 or $80 value)
SEMI-MONTHLY RAIL/BUS PASS:	BARTPlus (w/ $15 to $50 BART value) [8]	$28-$61 (8 denom)
	Premium BARTPlus (w/ $14 BART value) [9]	$36-$47 (3 denom)
MONTHLY RAIL/ SF MUNI PASS: [10]	Fast Pass -- (unlimited monthly use of BART and MUNI within San Francisco)	$35
ONE-WAY TRANSFERS TO: [11] (issued at rail stations)	BART Express Bus -- Zone 1	25¢ (50¢ base fare)
	Zone 2	40¢ ($1.15 base fare)
	CCC Transit Authority	50¢ ($1.00 base fare)
	Union City Transit	25¢ (50¢ base fare)
ROUND-TRIP TRANSFERS TO/FROM: [11] (issued at rail stations)	AC Transit -- From BART	60¢ ($1.10 base fare)
	To BART	60¢ ($1.10 base fare)
	SF MUNI, within SF -- From BART	$1.00 ($1.00 base fare)
	To BART	Free ($1.00 base fare)
	SF MUNI, Daly City Station -- From BART	Free ($1.00 base fare)
	To BART	Free ($1.00 base fare)
BART EXPRESS BUS: (1 Zone/2 Zone)	Children under 5	Free
	Children 5 through 12	15¢/30¢
	Regular Adult	75¢/$1.15
	Persons 65 and over	15¢/30¢
	Persons with a qualifying disability	15¢/30¢

Figure 1-6 (continued)

NOTES: BART FARE COMPONENTS AND TICKET PRICES

1. Trips over 6 miles within East Bay Suburban Zone (Concord-Orinda, Fremont-Bay Fair, Richmond-Ashby) priced at fare indicated for trips under 6 miles.

2. The Daly City surcharge does not apply to Transbay trips.

3. BART rail fares are computed by automatic fare collection equipment and are rounded to the nearest 5¢. The current range of fares is based on the most recent fare increase (averaging 32%) which occurred on January 1, 1986. Prior fare increases occurred on September 9, 1982, June 6, 1980, and November 11, 1975.

4. The average rail fare, before and after discounts, includes rail passenger revenue from all fare instruments, including the San Francisco MUNI Fast Pass. The figures shown are for FY 93.

5. Discounted tickets are sold at outside retail and community outlets, through BART's Tickets-To-Go program (as of August 1993, there were 397 BART ticket outlets plus an additional 177 outlets covered under the MTC-sponsored Regional Transit Connection). In-station sales booths at Montgomery, Embarcadero, 12th Street, and Concord also sell a variety of ticket types. BART's Pass Office sells all ticket types via mail order.

6. There is a three-hour limit on the excursion fare.

7. Translink features a last ride bonus, which allows riders to complete one final BART trip of any length with a minimum of 5¢ of stored value remaining on the ticket. This joint ticket is valid on BART rail, Express Bus (roundtrip discount of $1.00) and Contra Costa County Transit Authority (roundtrip discount of $1.10). Additional transit operators will be added in later phases.

8. The semi-monthly BARTPlus ticket was made available starting on April 1, 1991, and is valid for unlimited rides on BART Express Buses and eight other systems (excludes Transbay and some express bus service) which connect with BART rail. These other systems are: AC Transit, MUNI, SamTrans, Contra Costa County Transit Authority, Santa Clara County Transportation Agency, Union City Transit, Dumbarton Express, and Martinez Link. BARTPlus also features the last ride bonus. Remaining stored BART value may be used within a five-day grace period following the last day of the designated half-month.

9. The semi-monthly Premium BARTPlus ticket was made available starting on February 1, 1992. This fare instrument has the same basic features as BARTPlus, and includes longer-distance and express services provided by the following Bay Area transit operators: Dumbarton Transbay service, Golden Gate Transit Transbay bus and ferry service, Vallejo Transit bus service.

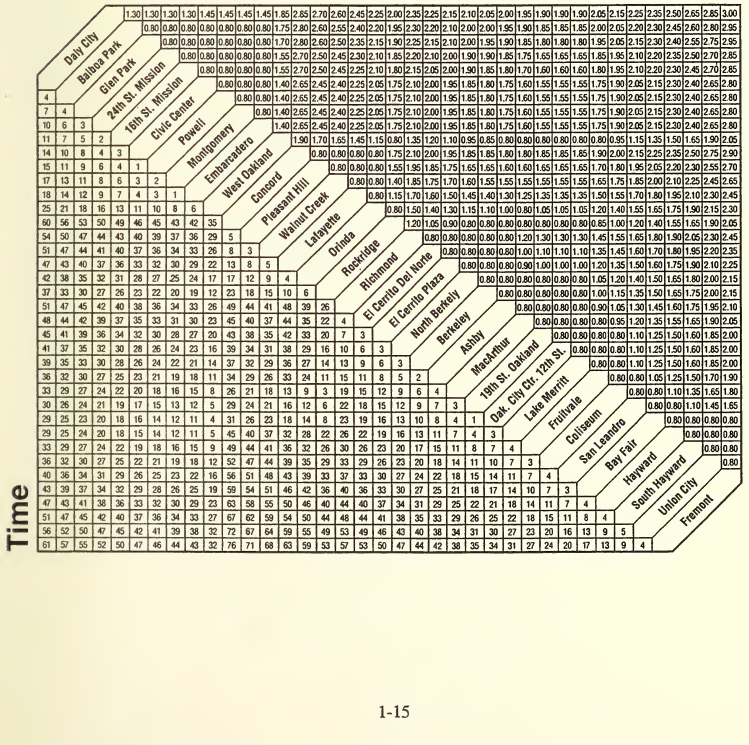
10. BART began accepting the regular adult MUNI Fast Pass for BART travel within San Francisco on April 1, 1983 (discounted Fast Passes are not valid on BART). Fast Passes are sold at stores, places of employment, and other outlets in San Francisco.

11. Except for the two-part $1.00 (round trip) Muni transfers issued in San Francisco stations, all other one-way and round-trip transfers are issued free of charge from vending machines located inside the paid area of BART rail stations. Riders needing connecting services can obtain transfers prior to exiting the BART paid area. Additional fares, if required, are paid upon boarding the connecting carrier. This additional fare is shown in the right-hand column.. The prices shown in parentheses correspond to the connecting carrier's base fare. The fare savings with the transfer is equal to the base fare less the additional fare paid to the connecting transit system.

Figure 1-7

BART FARES AND TRAVEL TIMES

(Travel Times Reflect The Train Schedule Effective June 22, 1992)



CHAPTER 2

SERVICE AND PROGRAM EVALUATION

SYSTEM PERFORMANCE EVALUATION

Throughout its history, BART's mission has been to deliver safe, reliable, customer-oriented transportation. With more than two decades of operational experience following its engineering and construction phase, BART continues to be guided by those key descriptive words: safe, reliable, customer oriented. Evolution of BART has been greatly influenced by challenges presented on many fronts, including those relating to technology, fiscal requirements, and political realities. Notwithstanding, the organization has continually set high standards of excellence. Central to achievement of its goals is the importance BART places on nurturing a talented and dedicated workforce, one capable of maintaining the dependability of the system, while forging ahead and meeting the challenges of the future. The organization's effectiveness depends a great deal on the policies and processes put in place to bring about positive change.

The following evaluation of BART service and programs is structured around the policy framework that guides its current operations and development of new services. BART's goals are the fundamental policy statements which provide focus and help establish priorities, as well as provide seed for new programs (see Figure 2-1, BART Goals). How well BART performs is best revealed by comparing the organization's achievements to its performance indicators and adopted standards. These, in effect, are measures of success which link actions to desired results. A summary of BART's performance relative to its adopted standards is presented in Figure 2-2 (BART Performance Indicators and Standards, Fiscal Year 1993). The following discussion presents information about BART services and programs as related to the District's eight goals.

Special SRTP topics are discussed as they relate to individual goals. These include: capital program planning and implementation; congestion management planning; contingency planning; DBE compliance and Title VI, accessibility for the elderly and persons with disabilities, privatization, and MTC Productivity Improvement Program (PIP), per BART's 1990 Performance Audit and inter-operator coordination/SB-602 based projects. Note that BART's PIP projects are discussed under the respective goals to which they relate. A summary of the status of all BART's PIP projects is presented in Figure 2-3 (Status for BART's FY 93 Productivity Improvement Program Projects). A more detailed discussion of ridership, capacity, and financial performance follows the goal's section.

Goal 1: Provide Safe, Reliable, and Economical Transportation

BART's first goal follows directly from its mission statement: to deliver safe, reliable, customer-oriented transportation. While train performance is a central theme, emphasis is also given to achieving and maintaining high performance standards for all aspects of BART operations. Programs are implemented and actions routinely performed within specified programs to provide the best possible travel environment for BART customers and as a marketing tool to win new customers.

Figure 2-1

BART GOALS

1. Provide safe, reliable, high-quality and economical transportation service to the Bay Area community.

2. Deliver user-friendly services to all our customers.

3. Empower employees to function as owners of the BART organization.

4. Provide an environment free of impediments to opportunities for employees and disadvantaged business enterprises, and one which encourages cooperation and develops an organizational team of highly motivated staff.

5. Develop BART services and facilities to expand District markets and capture new revenue sources.

6. Secure and manage the funds necessary to maintain and expand the system and to operate BART according to fiscally sound business practices.

7. Take the leadership role in integrating various features of regional transportation systems in policy, finance, and operations.

8. Build constituencies at all levels of government to support the BART organization and its programs.

Figure 2-2

BART PERFORMANCE INDICATORS AND STANDARDS
FISCAL YEAR 1993 PERFORMANCE SUMMARY

PERFORMANCE INDICATORS (a)	ACTUAL	STANDARD	STATUS (b)
1. RIDERSHIP: TOTAL TRIPS	***73,939,485***	***73,345,800***	***EXCEEDED***
AVERAGE WEEKDAY TRIPS	***253,838***	***252,455***	***EXCEEDED***
TOTAL EXPRESS BUS	2,285,887	(c)	n.a.
2. CARS AVAILABLE AT 4 AM: A-CARS	85	86	–
B-CARS	242	248	–
C-CARS	114	119	–
TOTAL FLEET	442	453	NOT MET
3. PEAK 5-MINUTE DELAYS (Per 100 Train Runs): DELAY EVENTS	2.96	3.00	EXCEEDED
DELAYED TRAINS	8.42	8.00	NOT MET
4. PEAK PERIOD/PEAK DIRECTION TRANSBAY CAR THROUGHPUT (%)	***97.8***	***97.5***	***MET***
5. LOAD FACTORS: PEAK PERIOD (Discretionary Trains) (d)	0.88	1.15	NOT MET
OFFPEAK (All Midday & Night Trains)	0.63	1.00	EXCEEDED
6. TRAIN ON-TIME PERFORMANCE (%): DAILY	***95.9***	***95.0***	***EXCEEDED***
PEAK	93.9	(e)	n.a.
7. PASSENGER ACCIDENTS (Annual Rate–Incidents/Million Trips)	12.5	17.7	EXCEEDED
8. AFC PERFORMANCE (Incidents/1,000 Trips)	***0.21***	***0.30***	***EXCEEDED***
9. STATION EQUIPMENT AVAILABILITY (%): ELEVATORS	99.8	97.0	EXCEEDED
ESCALATORS	97.3	97.0	MET
10. EXPRESS BUS ON-TIME PERFORMANCE (%)	95.2	95.0	MET
11. FAREBOX RATIOS (%): RAIL	***49.9***	***48.7***	***EXCEEDED***
EXPRESS BUS	19.1	15.5	EXCEEDED
TOTAL OPERATION	48.6	47.3	EXCEEDED
12. SYSTEM OPERATING RATIO (%)	***53.3***	***51.8***	***EXCEEDED***
13. RAIL COST PER PASSENGER MILE (Cents)	***21.7***	***22.3***	***EXCEEDED***
14. REVENUE VEHICLE MILES PER EQUIVALENT BART EMPLOYEE	18,902	17,628	EXCEEDED
15. SYSTEM UTILIZATION (%–Passenger Miles/Revenue Seat Mile)	31.8	32.7	NOT MET
16. EMPLOYEE LOST TIME DUE TO INDUSTRIAL INJURIES (%)	0.63	0.50	NOT MET
17. PAID SICK LEAVE (%–Sick Hours Paid/Straight Time Hours Paid)	3.07	3.00	NOT MET
18. DBE PARTICIPATION (%): ALL CONTRACTS	27.5	21.0	EXCEEDED
FEDERALLY ASSISTED CONTRACTS	25.3	21.0	EXCEEDED

Notes:

(a) Key performance indicators appear in bold/italic type.

(b) A standard is judged to be met if the ratio of actual to desired performance is within 0.5% of a minimum-threshold standard (e.g., Total Trips, Passenger On-Time, etc.). The reciprocal of this calculation is taken where the standard is a maximum threshold (e.g., AFC Performance, Rail Cost Per Passenger Mile, etc.)

(c) There is no specified standard for total express bus trips.

(d) Discretionary trains are those which BART can alter within the three-to-ten car limitation. BART's load factor standard is to provide capacity where possible such that the maximum average load factor for discretionary trains is not more than or less than 1.15 during the peak periods and not more than 1.00 in the offpeak. Beginning in FY 93 the definition of "peak period" was expanded from a 2.5 hour window (ie., morning or afternoon) to a 3.0 hour window. Current peak periods are from approximately 6 to 9 a.m. and 3:30 to 6:30 p.m..

(e) There is no specified standard for peak period train on-time performance. However, BART Board policy calls for the reporting of performance.

Figure 2-3

STATUS FOR BART'S FY 93 PRODUCTIVITY IMPROVEMENT PROGRAM PROJECTS BASED ON 1993 PERFORMANCE AUDIT & INTER-OPERATOR/SB-602

PROJECT TITLE	PURPOSE	STATUS
Procurement Manual Revision (1990 Performance Audit Project)	Improve parts availability, reduce improper transactions, and decrease processing time.	Key operator training and full-scale implementation of Procurement Manual completed in April 1993. Minor revisions and training in overall procedures ongoing.
Limit Cars Out-Of-Service Awaiting Parts (1990 Performance Audit Project)	Improve parts availability, inventory control, and security. Minimize cars out-of-service awaiting parts.	Cars out-of-service awaiting parts averaged 7 per week in May 1993. Fourth quarter FY 93 rate of 11 was caused by a temporary problem, currently being rectified.
Expansion of Concession Activities (1990 Performance Audit Project)	Increase concessions revenue by expanding retail activities at stations.	BART has canceled food and beverage concessions on District property as a means of reducing maintenance expense. Efforts to expand other non-food concessions are being made.
Monitor and Evaluate Promotional Costs (1990 Performance Audit Project)	Link marketing investments with ridership gains.	Due to major budget cuts in FY 93 for marketing and advertising, several planned promotions were not implemented this fiscal year.

First comes safety, a given, not an issue at BART. Operating procedures adhere to stringent industry standards. BART's Safety Department works closely with the California Public Utilities Commission (CPUC), as well as internally with BART operations, maintenance, engineering, and other departments to ensure continued compliance with all prescribed standards and procedures. The year 1993 saw the development and implementation of several new effective programs, including the establishment of an Accident Investigation Team, more intensive training of fire departments which serve BART, an Environmental Health and Safety Manual, a blood borne pathogen program, and a needlestick training program. In addition, training and certification/recertification programs continued for affected departments. Contingency planning efforts and emergency preparedness exercises continued to be conducted on a regular basis, and involved local fire departments, first aid units, and other emergency service providers. BART's excellent safety record has resulted in national recognition of the District's safety program as one of the leaders in the industry.

Contingency planning also included BART's Service Interruption Plan, focused on restoring service as soon as possible in the event of an emergency. Depending upon the type of emergency and its location, the Plan identified checklists to be followed for alternative procedures. These include actions to be taken by Transportation, Maintenance, BART Police, and local fire departments. Bus bridging alternatives were included to ensure minimal inconvenience to BART passengers when service on segments of the system is halted in response to an emergency.

BART's commitment to safety extends to law enforcement, the charge of its 154-member sworn police force. From the control of illegal parking to deterrence and investigation of serious criminal activities, BART Police use the latest techniques to minimize crimes against persons and property on trains, in stations and parking lots, and other BART facilities and property. During FY 93, serious crimes at the El Cerrito del Norte and Daly City parking structures were reduced 50% with the introduction of attendant staffing in October 1992. Fencing of the Richmond Station parking lot and the Concord Station Mesa Street lot in FY 93 also contributed to a reduction of crime at these locations.

Transit vehicle maintenance is critical to providing rail service that is both on time and in accordance with scheduled train capacity. Stringent preventative maintenance standards, efficient parts procurement and inventory methods, and procedures and technical expertise developed over the years have helped BART provide operable, clean, and safe vehicles ready for service each day. During FY 93, BART made an average of 442 vehicles available for service each day by 4 a.m., versus a standard of 453. Additional equipment checks imposed in FY 93 for the purpose of increasing vehicle reliability had a slight negative effect on achieving the target.

Efforts are ongoing for two projects identified in the FY 93 Productivity Improvement Program. First, implementation of the new Procurement Manual began in February 1993 and is continuing, with ongoing minor revisions to the document and staff training in overall procedures. Secondly, BART averaged four out-of-service vehicles per week during the first quarter of FY 93, compared to a standard of 6, or 1% of the operating fleet. During the third quarter, out of

service cars increased to 12, due to a temporary problem with the couplers. The problem was soon rectified, with out-of-service cars reduced to five vehicles per week during the last quarter of FY 93 (see Figure 2-3 Status for BART's FY 93 PIP Projects).

The December 17, 1992 derailment, between 12th Street and Lake Merritt stations, was immediately followed by an extensive investigation. Revisions to operational and maintenance procedures were implemented to minimize the likelihood of similar events in the future.

Because of the importance of maintaining service in accordance with BART's published train schedule, maintenance efforts focus on minimizing incidents which cause train delays (a delay is defined as five minutes or more). BART's objective is to achieve a rate no higher than three train delay events for every 100 dispatches (i.e., 3%). Actual performance for FY 93 reveals that BART's delay event rate was favorable at 2.96%. A second objective is to ensure that the delay events result in no more than 8% of trains from being delayed more than five minutes. The actual rate for FY 93 was 8.42%. This unfavorable rate reflects operational problems which occurred early in FY 93, in adjusting to BART's faster schedule (effective June 22, 1992). Performance improved as follow-up corrective actions were implemented.

A related objective is to increase the mean-time-between service delays to 900 car hours by December 1993 and to 1,000 by the end of FY 94. As discussed above, actual level of performance was impacted by the implementation of BART's faster train schedule. The initial impact resulted in lower and unfavorable mean-time-between service delays during the first quarter of FY 93 relative to prior quarters. Performance improved as problems with the new schedule were corrected such that actual performance in June 1993 was 948 hours between service delays. BART's captive fleet program, which assigns responsibility for individual cars to specific maintenance yards and assures better control and attention to vehicle failures, continued to assist in reducing delays.

Passenger on-time performance, defined as the percentage of passengers arriving at their destination within five minutes of the scheduled train-run times, averaged 93.3% for all rail trips in FY 93, versus a standard of 94.0%. Daily and peak period train on-time performance for FY 93 averaged 95.9% and 93.9%, respectively.

Adequate car availability at targeted levels allows BART to schedule capacity when and where needed. Factors limiting train headways and allowable train lengths are constraints with which BART must contend. Reducing the minimum headway is an important BART objective representing a significant challenge now being addressed by the District's Capital Improvement Program. Allowable train lengths, on the other hand, are governed by two factors, both of which are unlikely to change in the foreseeable future. The first is the CPUC requirement of a minimum three-car train, based on track occupancy detection specifications. BART, therefore, must provide a minimum of a three-car train, even though demand may call for fewer cars, during late night hours for example. On the upper end, BART is limited to operating trains each consisting of no more than ten cars, the length of station platforms. Maximum train length combined with minimum allowable headway define the *limit* of capacity BART can achieve.

Exceeding this limit by reducing headways is one of the primary objectives BART is striving to achieve.

BART continually monitors passenger demand at peak screenlines and schedules available cars to match the demand, when and where possible (i.e., within the headway and train-length constraints). BART's Data Acquisition System (DAS) and automated train history files provide the basic data for the Passenger Flow Model (PFM), which is used in the analysis and reporting of load factors (the ratio of people to train seats). Peak period load factors are measured over a three-hour time frame, starting 60 minutes before the peak hour. Load factors for peak period discretionary trains, those which BART can effectively alter within the three-to-ten-car limitation, averaged 0.88 during FY 93, versus a target of 1.15. Because there are very few *discretionary* trains operating during the peaks, this is not the load factor riders typically experience. The load factor for peak hour transbay trains during FY 93 was considerably higher, averaging 1.28. Peak hour Richmond-Fremont service averaged 0.94.

Providing high quality service also means keeping vehicles free of litter and graffiti. BART's Car Cleaning Program continued to be effective in FY 93 and included nightly interior car cleaning and exterior car-brightening of the entire fleet of 589 cars every 24 weeks. BART maintenance activities focused on station cleanliness by performing routine cleaning and repair on a regular basis. In addition to the four stations reconditioned under the Station Rehabilitation Program begun in FY 91, four more were completed by the end of FY 93. These stations include Walnut Creek, Coliseum, 24th Street, and 16th Street.

Efforts to provide the best possible service at high standards, while achieving economies of scale, have led BART to privatize some functional aspects of its operations, where costs of outside services are less than could be achieved by the District. On a contract dollar basis, BART's express bus service (operated by Laidlaw Transit, Inc.) constitutes the largest budget line item under privatization. Other functional areas which have been privatized include traction motor overhaul and vehicle seat cleaning. Figure 2-4 (BART Privatization, Services Provided Under Contract) summarizes the services provided to BART under contract with outside firms.

Goal 2: Deliver User-Friendly Service

This element of BART's mission includes delivering efficient and accessible service. Over the past three years, more emphasis has been given to doing just that. An important part of this effort is BART's participation in the Metropolitan Transportation Commission (MTC) Regional Transit Coordination Program (in compliance with SB-602), which seeks to improve the availability of transit information and coordination of fares and simplify inter-operator transfers. Most of these activities are presented under *Goal 7* which addresses regional service integration.

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The June 1992 rail service schedule enabled BART to go another step toward providing user-friendly service. Train speeds were increased and timed train meets were scheduled to reduce transfer times, conveying passengers to their destination with greater speed and ease. Additional service begun in April 1993, the *Sunday Double Header Express*, provides supplementary daytime trains between selected stations in the East Bay and San Francisco on Sundays.

Providing user-friendly BART service also means reducing or eliminating barriers which lead to decisions to not use the system. Improvement of customer relations is the key focus. Station agents, BART Police, other front-line staff, and behind-the-scenes personnel receive training on customer interaction, confrontation avoidance, and other methods to help staff respond in a positive and helpful way to customer needs in a variety of situations.

Many improvements have been achieved in making information readily available for customers, regarding BART train and express bus service schedules, fares, transfers, and connections with other transit lines. Prime examples are the large train schedule display boards on the train platform level of each station, and the information kiosks on station concourse levels. Numerous brochures are made available to riders at bins located near station agents booths, entry/exit gates, kiosks, and other locations. The brochures are updated as needed and provide information concerning how to use the system, fares, destinations, important points of interest the system serves, and where discount tickets may be purchased. Most of the brochures are also available in Cantonese, Spanish, and Tagalog. In FY 93, the popular *All About BART* brochure was combined with the weekday train schedule to provide one convenient brochure, while also reducing BART's printing cost.

BART continues to make every effort to accommodate the needs of the elderly and persons with disabilities. Design standards and features of stations and vehicles are evidence of this concern for providing a safe and accessible travel environment. Stringent performance standards and preventative maintenance for station elevators and escalators help keep this vital equipment in operable, safe condition for all BART riders, but is most critical in making BART an accessible system. Elevator availability typically has been above 99% and averaged 99.8% during FY 93. Escalator availability during the same period averaged 97.3%.

The BART Accessibility Task Force, comprised of representatives from the elderly and disabled communities, meets regularly with BART staff for the purpose of identifying projects which may further enhance system accessibility. The Coordinated Paratransit Plan was adopted by the District Board of Directors in December 1992, in compliance with requirements of the Americans with Disabilities Act (ADA). The required annual update was submitted in July 1993 to the Federal Transportation Administration (FTA). Implementation of the projects specified by the ADA Plan will take place over the next four years. A required survey of travel demand for persons with disabilities has been conducted in conjunction with AC Transit. A peer transit training program (taught by persons with disabilities) and the negotiation of cost sharing agreements between BART and other Bay Area transit operators are in the process of being implemented. The District's adopted Key Station Plan identifies BART's strategies for bringing stations up to ADA standards. [Additional details are present in Chapter 3, Planned Service and Programs.]

Figure 2-4

BART PRIVATIZATION
SERVICES PROVIDED UNDER CONTRACT

	FY 93 ACTUAL	FY 94 BUDGET
EXPRESS BUS SERVICE	6,455,697	6,703,288
TRACTION MOTOR OVERHAUL	1,102,302	955,452
BART SHUTTLE BUS SERVICE	112,724	185,000
SEAT CLEANING	217,803	263,286
WHEEL RECONDITIONING	245,159	265,000
WEED ABATEMENT	144,000	66,000
GRAFFITI REMOVAL	55,504	163,767
PARKING LOT SWEEPING	34,992	104,976
ROLLER BEARINGS	163,728	201,600
BRAKE LININGS	*	80,000
WINDOW WASHING	29,680	80,000
PIGEON CONTROL	25,000	112,185
WHEEL REMOVAL	19,028	29,110
PEST CONTROL	11,995	13,000
FIRE EXTINGUISHER SERVICE	24,296	22,536
PC MAINTENANCE & REPAIR	29,850	*
FLAME SPRAY OF BEARINGS	10,000	30,000
TOTAL	8,678,858	9,215,200

* unavailable

Goal 3: **Empower Employees To Function As Owners Of BART**

The quality of service as experienced by BART's customers is a direct reflection of the people who deliver it: BART's 2,700+ employees. For this reason, programs to promote professional development are an important part of how BART nurtures its human resources and, at the same time, improves the quality of service. Specific standards have been developed for training managers, supervisors, and front-line employees. Due recognition is given with regard to employee performance, suggestions, service history, and attendance records.

Goal 4: **Provide An Environment Free Of Impediments To Opportunities For Employees and Disadvantaged Business Enterprises, One Which Encourages Cooperation And Develops A Highly Motivated Organizational Team And Staff**

Related to empowering employees are programs to promote career development within the organization, efforts to provide a level of disadvantaged business enterprise (DBE) participation coincident with District objectives, and achievement of the FY 93 Affirmative Action Goals representing the hiring and promotions of women and minorities.

To upgrade its workforce, BART conducts Career Development workshops on a quarterly basis. These are designed to provide BART employees with the necessary tools to develop and activate a career plan, particularly for District promotion. Other programs, including BART's Employee Assistance Program and Return-to-Work Program, provide employees with resources for addressing on-the-job and personal problems which may impact job performance.

During the next few years, BART is expected to experience a higher than usual retirement rate, as the staff hired before and right after the start of train service in 1972 become eligible to retire. To offset the potential loss of expertise, a retirement forecasting study was completed in September 1992. Based on the results, recruitment plans have been developed to target the classifications anticipated to be most affected. These plans will be reassessed and revised periodically as necessary to help meet the District's future staffing needs.

BART's Affirmative Action Program is guided by policies and specific targets with regard to representation of women and minorities within fifteen job categories. BART's engineering intern program, designed to help promote upward mobility of women and minorities, hired five interns during FY 93. An update of BART's Affirmative Action Plan for achieving the current representation targets and for identifying future targets, has been developed using 1990 U. S. Census Bureau data.

An important part of BART's Affirmative Action Program is to provide opportunities for women and minority owned business enterprises to participate in District contracts. BART has had a long-standing objective to achieve 21% minority business enterprise participation for all District contracts which have been determined to have disadvantaged business enterprise opportunities.

During FY 93, actual DBE participation on a contract-dollar basis was 27.5% for all District contracts, and 25.3% for federally assisted contracts. The hiring of a DBE Program Administrator and a DBE manager aided BART in exceeding the objective for FY 93. Outreach activities, including trade fairs and the expansion of the Regional Transit Association (RTA) DBE directory are continuing, and technical assistance is provided as needed.

A related activity, with regard to affirmative action, is BART's Title VI program, in compliance with that section of the United States Civil Rights Act of 1964. The objectives of this program are to ensure that FTA assisted benefits and services are made available and are equitably distributed without regard to race, color, or national origin. In March 1993 a Title VI report was submitted to FTA, outlining (or "defining the need for") BART's commitment to FTA to review multilingual signage and information.

Goal 5: Develop BART Services And Facilities To Expand District Markets And Capture New Revenue Sources

In June 1992 BART implemented a new service schedule including increased trains speeds and timed train meets for transferring passengers. New speeds were made possible through improvements to the automatic train controls for all cars, door modifications to allow faster opening and closing, and a logic change in the performance levels assigned. The scheduling change allowed BART to address two of its longtime goals of increasing speeds and reducing equipment requirements.

BART's marketing efforts have traditionally focused on offpeak riders, because it is during this service period that additional capacity is available to accommodate higher demand. The use of print and broadcast media for advertising BART services has been supplemented by cooperative marketing efforts with event sponsors. Periodically, BART has coordinated special train schedules around major events. This has been particularly successful for large sporting and special events held at the Oakland Coliseum, including the Oakland A's and Warriors. Through joint promotions with the Oakland A's, BART's share of the attendance gate is now at about 17% for games at the Coliseum. Special train service, such as to the annual *Bay-to-Breakers* race in San Francisco (total BART trips to the 1993 event were 28,000), and *Shoppers' Specials* during the winter holiday season, are also used to promote offpeak system use and gain additional revenue. In FY 93, BART continued a joint promotion with UC Berkeley, which focused on increasing BART access to the university. Another marketing effort targeted new residents to the Bay Area as well as current system riders for direct-mail promotions of express bus service.

In October 1992, BART conducted its Passenger Profile Survey, receiving nearly 34,000 usable responses (the last survey was conducted in May 1987). Preliminary results indicate that 61% of all BART passengers could have used another transit system for their trip instead of BART. Additionally, over half (57%) of all transbay passengers had cars available for their trips. This survey will be used to identify current travel and socioeconomic characteristics of BART weekday passengers, and to formulate future marketing efforts. A Geographic Information System (GIS) was used to manage this database and produce analyses.

Efforts to expand District markets and tap new revenue sources extend to BART's Express Bus system. Since privatization of this part of BART operations in 1991 and route streamlining/schedule coordination with rail, the farebox ratio for express bus service has continued to rise. Whereas the express bus farebox ratio stood at 8.5% in FY 88, the FY 93 level was 19.1%.

Additionally, in March 1993, Golden Gate Transit (GGT) began direct bus service from Marin County to Richmond and El Cerrito del Norte stations, as a three year demonstration service under the sponsorship of GGT and MTC. The latest ridership data available is April 1993, with weekday ridership at approximately 370 passengers. This exceeded MTC's target of 200 per weekday and is forecast to be over 400 passengers by January 1994.

Construction of Phase I extensions of BART continued to transform the landscape in Alameda, Contra Costa and San Mateo counties. Now in the third year of construction on the Pittsburg/Antioch and Dublin/Pleasanton Extensions, and the second year on the Colma Station Extension, BART aggressively gained ground while creating jobs to fuel the Bay Area economy.

In the East Bay, the Pittsburg/Antioch Extension will link western and eastern Contra Costa County with nearly eight new miles of BART track, providing a valuable transit link to the high growth eastern region. One construction contract was completed last year; eight others continued or will start up this year; and the last will kick off in early 1994. Estimated to cost $506 million, this extension will propel BART to the new North Concord/Martinez Station in 1995 and to West Pittsburg in 1997.

In neighboring Alameda County, the $517 million Dublin/Pleasanton Extension experienced similar momentum, with one construction contract completed last year, eight more up and running and three others set to start up this year. The longest of the Phase I extensions, this new 14-mile line will bring BART service to stations in Castro Valley and the cities of Dublin and Pleasanton by late 1995.

On the Peninsula, the Colma Station Extension -- first step to San Francisco International Airport -- continued to advance ahead of schedule, with two construction contracts completed and all others in motion. Due to open in 1995, this 1.6-mile extension is projected to cost $170 million.

Concurrently, environmental studies and preliminary engineering proceeded on the San Francisco International Airport Extension.

Final design on the remaining Phase I extension, Warm Springs, was halted in early summer, due to pending litigation and a funding shortfall.

Planning also progressed on Phase II and III extension projects (Figure 3-12 in Chapter 3). In October of 1992, the West Contra Costa Alignment Alternatives Study identified the four most promising BART alignments for an extension in the I-80 corridor to the vicinity of Crockett. BART continues to work with West Contra Costa County communities to advance the project.

During September of 1992, there was also major progress on the Oakland Airport Intermodal Connector Project. In partnership with the Port of Oakland and AAI Corporation, BART was selected as one of three finalist in the Federal Transit Administration (FTA) competition for a Suspended Light Rail System Technology (SLRT) Pilot Project demonstration grant. A Feasibility Study was completed in September of 1993 and submitted to FTA. Concurrently, an Oakland Airport Connector Project Update Study was also completed this Fall.

During the Fall of 1993, the Fast Track regional commuter rail plan was developed. Consistent with BART Extension Staging policy, the plan uses existing rail infrastructure to provide interim rail service. The new lines will add more than 200 miles of active track to the regional rail system. Three new commuter rail lines will directly link with the existing BART system at numerous intermodal stations, creating a nearly instantaneous regional commuter rail system (refer to Figure 2-5, Regional Rail Network).

BART's involvement with efforts to increase capacity and extend the system has not overshadowed the need for implementing improvements to other aspects of service. System access is a prime example, where providing sufficient parking and coordinating services with other transit providers is basic to expanding and tapping new markets. As of June 1993, 24 of BART's 34 stations had parking facilities, totaling 31,062 spaces. Parking garages at Concord, Walnut Creek, and Hayward stations are currently under construction, and are expected to be completed in mid-1994 (refer to Figure 3-7, Parking Spaces FY 93 to FY 03 - Existing and Planned Rail Stations). Funds have been set aside to develop a Comprehensive Access Strategy and Management Plan. The long-term goal of this plan is to increase and improve system-wide access to BART, based on methods employed by past projects proven to be successful.

BART's congestion management planning focused on developing alternatives to single-occupancy vehicle access and egress of BART stations. The District was active in assisting large Bay Area employers in development of alternative commute methods for their employees, and has sought funding to replace and provide additional station bicycle lockers. Coordination efforts with local bus operators have resulted in better connectivity between transit modes. Also, in the planning stages for FY 93 were joint development efforts between BART and local redevelopment agencies for high-density, multi-land use developments of property adjacent to BART stations. Plans for a more pedestrian friendly environment were also initiated.

In addition, BART is on the leading edge of technology, working with Pacific Gas and Electric (PG&E) in a one-year demonstration of an electric vehicle recharging station at Lafayette Station. Currently, employees of PG&E use an electric van to carpool between the station and home, recharging the vehicle as it is parked at BART during the daytime. Funding for 45 more electric station cars has been obtained. BART is also monitoring developments in telecommunications that would enhance traveler information and improve access to the system.

Other BART programs focus on efforts to capture new sources of revenue. Included are the sale of excess land (which provided for just over $603,000 to BART's capital budget for FY 93), leasing of space in stations for concessions ($1,102,393 in FY 93), right-of-way leasing for fiber

Figure 2-5

Regional Rail Network

optics facilities, and ground leases for joint development projects. *Expansion of Concessions Activities* is one of BART's FY 93 PIP projects, identified as the result of the 1990 Performance Audit. Board policy does not allow food on trains so, at this time, the granting of concession permits to vendors of food is being canceled. Expansion of other non-food concession activities, including a pay telephone contract, is being pursued as an alternative.

Goal 6: Secure And Manage Funds Necessary To Maintain And Expand The System And Operate BART According To Fiscally Sound Business Practices

Increased competition for limited local, state, and federal funding has resulted in BART having to take a more aggressive role in advocating and securing resources for implementing needed capital improvements. Rehabilitation of the 20-year old core system alone is estimated to cost just over $1 billion. This is money that will be needed over the next ten years to keep the *current system* in top condition. The capital costs of the Phase I extensions for the next ten years is approximately $2.7 billion. With the exception of a funding shortfall for Warm Springs and for the third station on the Dublin/Pleasanton extension, this amount is programmed for full funding if the Intermodal Surface Transportation Efficiency Act (ISTEA) is re-authorized in 1997, which would fully fund the San Francisco Airport extension. The process for identifying projects in response to service needs, developing implementation schedules based on priorities, and project funding drives BART's capital program. BART's 1993 Capital Improvement Program (CIP) discusses the process of identifying the projects necessary to rehabilitate, maintain, and expand the system through the fiscal year 2003. Implementation schedules and project funding sources required for the delivery of service improvements are integrated into this companion document to the Short Range Transit Plan.

BART's Department of Government and Community Relations (G&CR) oversees the District's efforts with regard to legislative advocacy and procurement of capital program funding. During FY 93, G&CR focused on defining and procuring funding commitments for the system rehabilitation program and extension projects. The District is also now able to compete for funds previously reserved for highway projects under the $151 billion Intermodal Surface Transportation Efficiency Act of 1991. The emphasis of ISTEA is on diversity and balance of transportation modes, and preserving existing systems rather than new construction.

Other G&CR efforts focused on streamlining the state's administrative procedures for accessing state funds. These efforts led to adoption by the California Transportation Commission (CTC) improved grant application procedures which included recommendations by BART and passage of legislation that requires prompt payment of approved funds by the State. Additionally, BART set up a commercial paper program to ensure better access to funds for short-term borrowing. This program is particularly important for extensions, where delays can result in increased cost.

A key function of the District's Department of Internal Audit is to ensure that BART utilizes the funds it does receive to the public's best advantage. This department's mission is to audit all of BART's major financial activities and transactions on an ongoing basis, as well as conduct audits

with respect to contracts, performance, fraud, waste, and abuse. During FY 93, as many as 20 audits were in progress at any one time.

Goal 7: **Take The Leadership Role In Integrating Various Features Of Regional Transportation Systems In Policy, Finance, And Operations**

BART's role in the region, by its very nature, is to join places by providing quality, car-free accessibility. BART, however, cannot serve all places directly and is, therefore, only as strong as its ties to other modes of transportation. With just over 71 miles of mainline double-track currently and 35 more to be added in the next nine years, BART provides a common thread linking over a dozen local and long-distance ground transportation providers. With future connections to both San Francisco and Oakland International Airports, this number quickly multiplies by adding all the airlines serving these two facilities. *Accessibility* is the key, regardless of mode. While parking is very important, for the region to maximize its investment in BART and in all forms of public transit, and to achieve clean air standards, it is of paramount concern that the Bay Area's transit systems function as an integrated whole to promote increased ridership and reduced automobile dependence.

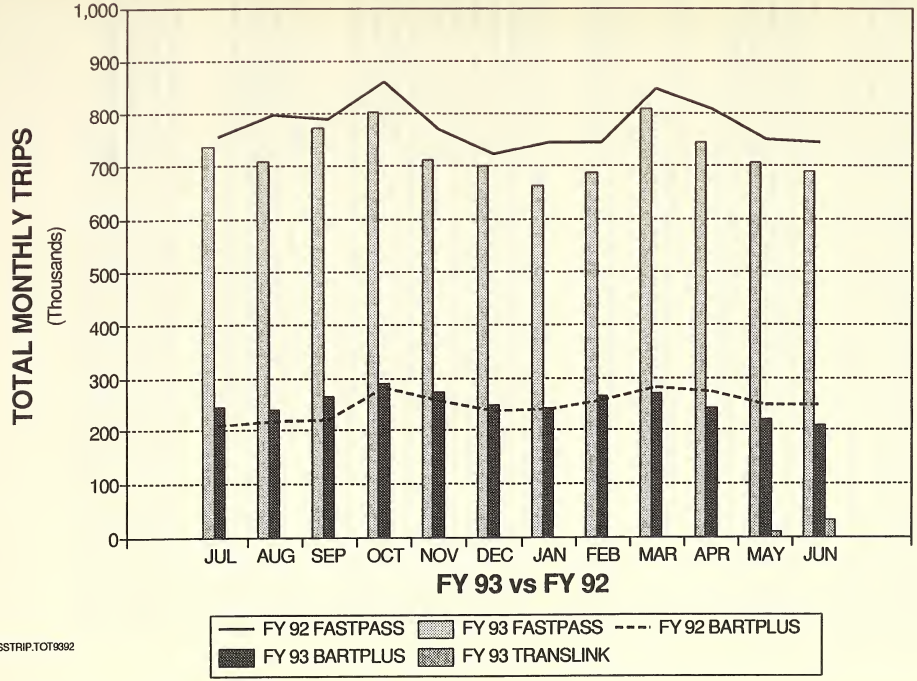
The importance of system integration has led BART to implement projects which make using transit easier, by coordinating schedules and fares, and providing better information for transit connections. To improve circulation and access to and from stations, transit centers are being established at the following stations: Concord, Walnut Creek, El Cerrito del Norte, Daly City, San Leandro, Bay Fair, and Hayward. These transit centers improve bus circulation, signs, and passenger information, and also add bus zones, and more comfortable passenger waiting areas. The El Cerrito del Norte and Bay Fair stations are substantially complete. Construction for the Daly City Station is estimated to begin in the first half of FY 94. Expanded parking facilities at the Concord, Walnut Creek, and Hayward stations are currently under construction, with completion scheduled for FY 94. In addition, the District is working with Caltrans to secure I-680/24 Transportation System Management funding to provide 500-700 interim parking spaces at or near the Pleasant Hill Station and to provide two additional a.m. and p.m. peak hour trains along the Concord to Bayfair route segment.

TransLink, a *universal* ticket instrument, featuring magnetically encoded fare information similar to BART tickets, was placed in limited service in May 1993. Currently, it is valid on BART, BART Express Buses, and buses operated by Central Contra Costa Transit Authority (CCCTA). Modifications to full service will continue through January 1994. Expansion of this ticket to additional agencies will be dependent upon its success in this limited trial and interest on the part of other Bay Area operators. Figure 1-6 (BART Fare Components and Ticket Prices) summarizes this and other fare instruments.

In FY 93 approximately 12% of weekday travel on BART was made with the BART/MUNI Fast Pass. An additional 4% of weekday trips were made using BARTPlus and Premium BARTPlus tickets. Figure 2-6 (Inter-Operator Ticket Ridership, BART/MUNI Fast Pass and

Figure 2-6

INTEROPERATOR TICKET RIDERSHIP



PASSTRIP.TOT9392

BARTPlus/Premium BARTPlus) summarizes the ridership data for these instruments. BART trips made with the Fast Pass experienced a decrease between FY 92 and FY 93. It should also be noted that MUNI implemented a 17.7% increase effective August 1, 1992, for its single payment cash fare, which went from 85¢ to $1.00, and a 6.7% increase in the Fast Pass price, from $30 to $32. More recently, in August 1993, the Fast Pass price was increased to $35.

BART is further involved in the coordination and integration of transportation services in the Bay Area, as evidenced by the District's participation in emergency and energy contingency planning, including interim and future efforts to improve and or replace freeways damaged and/or destroyed by the October 1989 Loma Prieta Earthquake--(with Caltrans as lead agency), and State mandated county congestion management planning (with the individual counties as lead agency).

Goal 8: Build Constituencies At All Levels Of Government To Support The BART Organization And Its Programs

As a publicly funded agency, and one whose Board of Directors is locally elected, BART is well positioned to receive and respond to public concerns regarding the current state and future of the system.

In addition to communication via Board-related processes, BART has implemented important programs aimed at both educating and promoting dialogue between the organization and interested parties, be they individuals, special interest/professional groups, small businesses, or large corporations. The specific goals are addressed in the Action Plan for Systemwide Community Relations, developed by BART's department of Government and Community Relations. The BART Speaker Bureau Program, established in 1990, responded to nearly 400 requests for information in FY 93, usually in the form of presentations before special interest groups. Specific interests and topics are identified for each individual request, then a knowledgeable BART staff member, drawn from a pool of speakers, is selected to address the group. This program is instrumental in communicating BART initiatives and promoting support for the system.

BART also continued to work closely with the many communities along the extension construction alignments. Community Service Centers are located in Concord, Hayward, Dublin and Colma, where full-time staff keep residential and commercial neighbors apprised of construction plans and activities, and provide personalized assistance with problems, complaints and concerns.

Community relations services on the extensions feature a Hotline into each Center, printed materials, a video and slide presentations, station models and renderings, maps and a portable exhibit. A speakers' bureau and special school safety program provide important information to a multitude of groups and organizations, and staff regularly participate in local events and other venues providing opportunities to share information and lend assistance.

As stated under Goal 6 (secure and manage funds for maintenance and expansion), BART's Government and Community Relations Department keeps abreast of legislative matters and formulates plans for advocating support for BART initiatives.

EVALUATION OF RIDERSHIP

BART ridership grew at a modest pace over the past year, one marked by a net loss of jobs in the region due to the continuation of the recession. Despite the recession and decline of employment, total annual trips on the BART were 1.3% higher in FY 93 versus the prior fiscal year. Average weekday travel was up 1.7% from 249,548 trips to 253,837; system use on Saturdays went up 0.2% from an average of 108,179 to 108,356 trips, with Sunday's average also increasing 0.2% from 68,111 to 68,246 trips.

Figure 2-7 (Total Monthly Rail Trips) identifies total monthly BART ridership for FY 92 and FY 93. Also identified is the budgeted ridership for FY 93. As shown, total monthly ridership this fiscal year is roughly at or above respective months last year. Total trips on BART during FY 93 amounted to 73,939,485. This is 0.8 % over a budgeted figure of 73,345,800 trips.

Total trips on BART express buses increased significantly. Figure 2-8 (Total Monthly Express Bus Trips) identifies monthly ridership for this service. Express bus ridership in FY 93 increased 8.6% over FY 92 (2,285,887 trips in FY 93 versus 2,104,219 in FY 92).

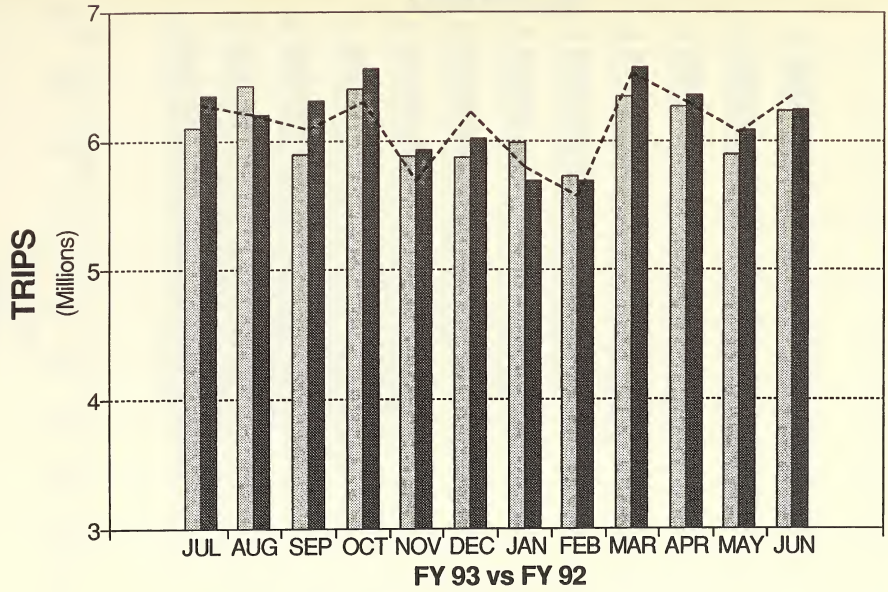
Figure 2-9 (Average Weekday Rail Trips) identifies average weekday rail ridership by month for FY 92, FY 93 and the FY 93 forecast. Trends similar to those noted above for total trips are evident for weekdays. During FY 93, weekday ridership averaged 253,837 trips versus a forecast of 252,455 (0.5 % over budget). The split between peak and offpeak system use is shown in Figure 2-10 (Average Weekday Peak Period Rail Trips) and Figure 2-11 (Average Weekday Offpeak Rail Trips).

During FY 93, BART ridership for the four-hour peak period (two hours during the morning commute plus the two hours in the afternoon) averaged 120,540 trips, or 47.5% of typical weekday ridership. Offpeak ridership on weekdays in FY 93 averaged 133,298 trips, or 52.5% of average weekday system use. Compared to forecast, peak and offpeak BART ridership in FY 93 was 0.1% and 1.0% over fiscal year forecasts, respectively.

Weekend BART use performed well relative to forecast which had been adjusted for the recession (refer to Figure 2-12, Average Saturday Rail Trips; and Figure 2-13, Average Sunday Rail Trips). Marketing efforts promoting offpeak travel and special service for major Bay Area events have contributed to this favorable trend. Saturday ridership during FY 93 averaged 108,356 trips, or 0.8% over a forecast of 107,534. Sunday's average was 68,246, or 1.1% above a forecast of 67,474 trips.

Figure 2-7

TOTAL MONTHLY RAIL TRIPS



TOTTRIPS.FY92FY93

Figure 2-8

TOTAL MONTHLY EXPRESS BUS TRIPS

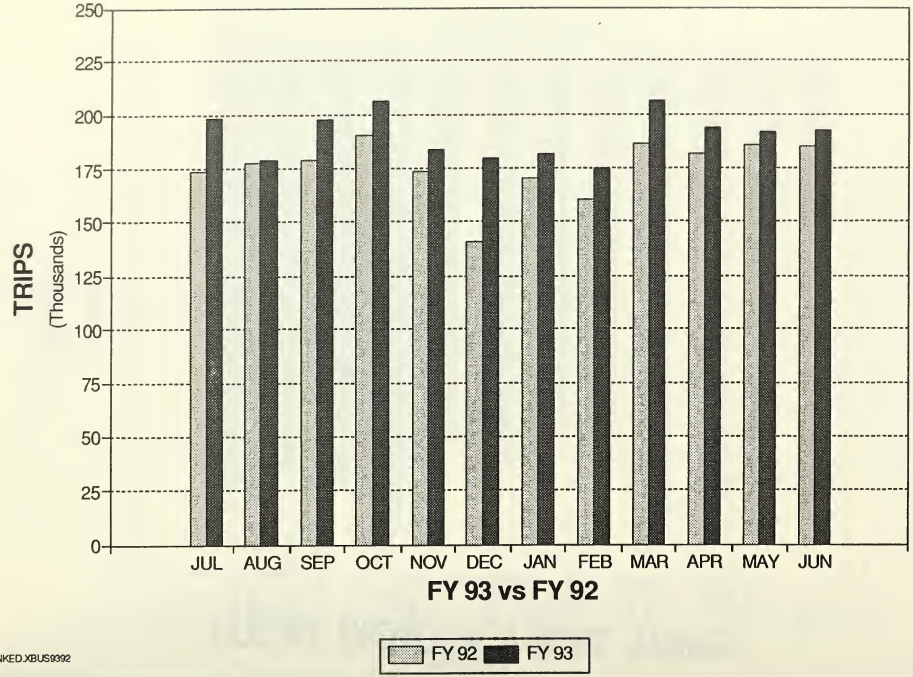


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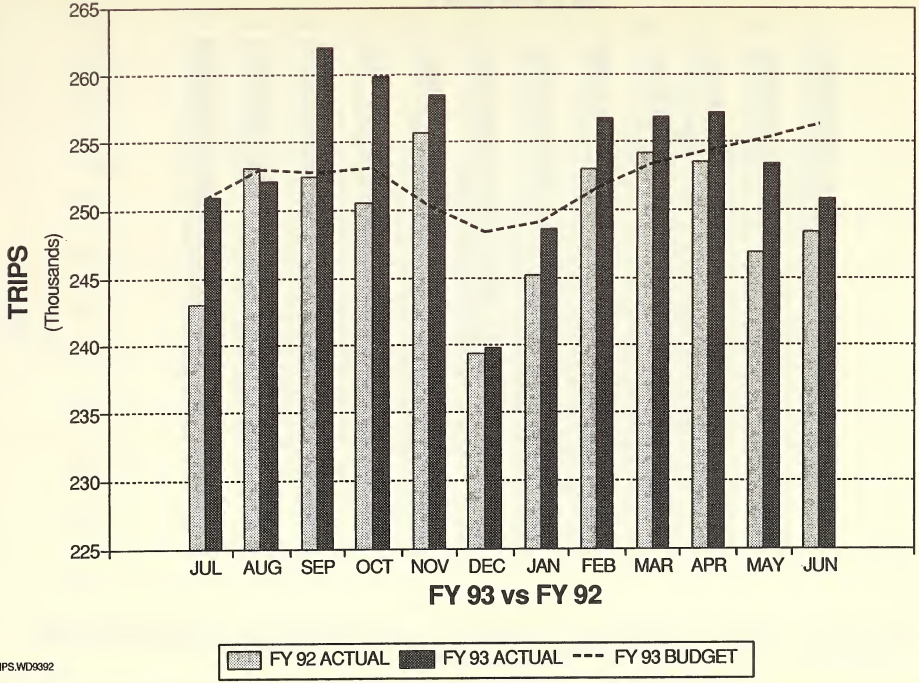
Figure 2-9

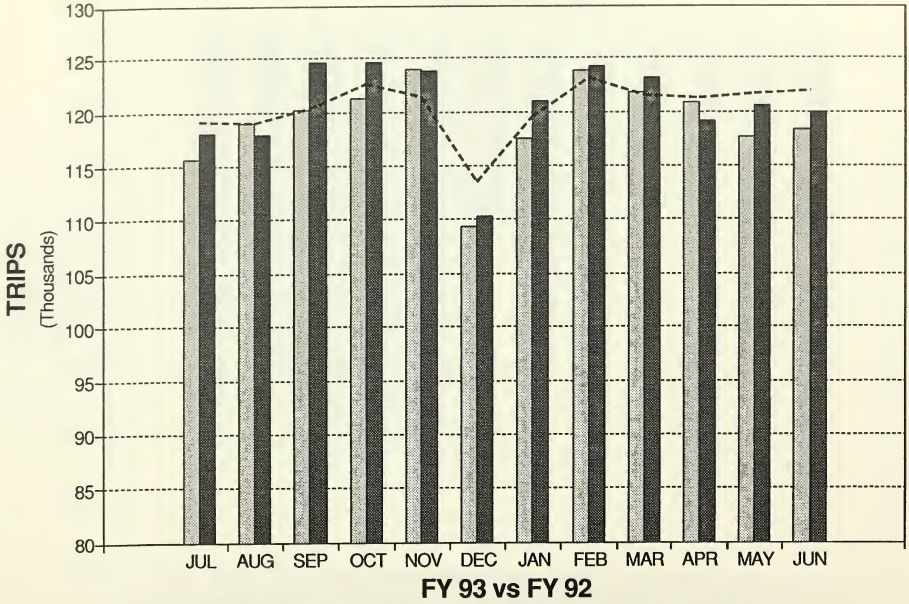
AVERAGE WEEKDAY RAIL TRIPS



WDTRIPS.WD9392

Figure 2-10

AVERAGE WEEKDAY PEAK PERIOD RAIL TRIPS



PKTRIPS.PK9392

Figure 2-11

AVERAGE WEEKDAY OFFPEAK RAIL TRIPS

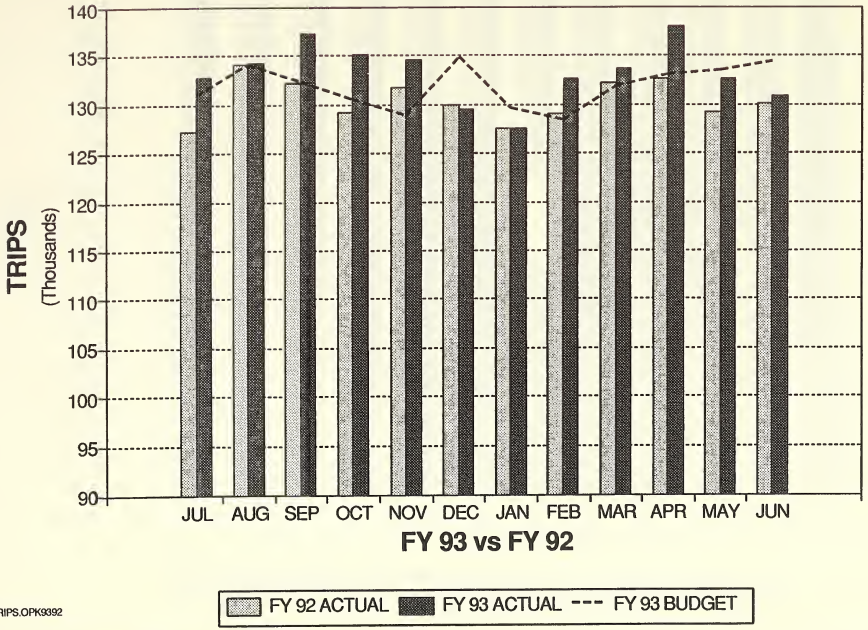


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Figure 2-12

AVERAGE SATURDAY RAIL TRIPS

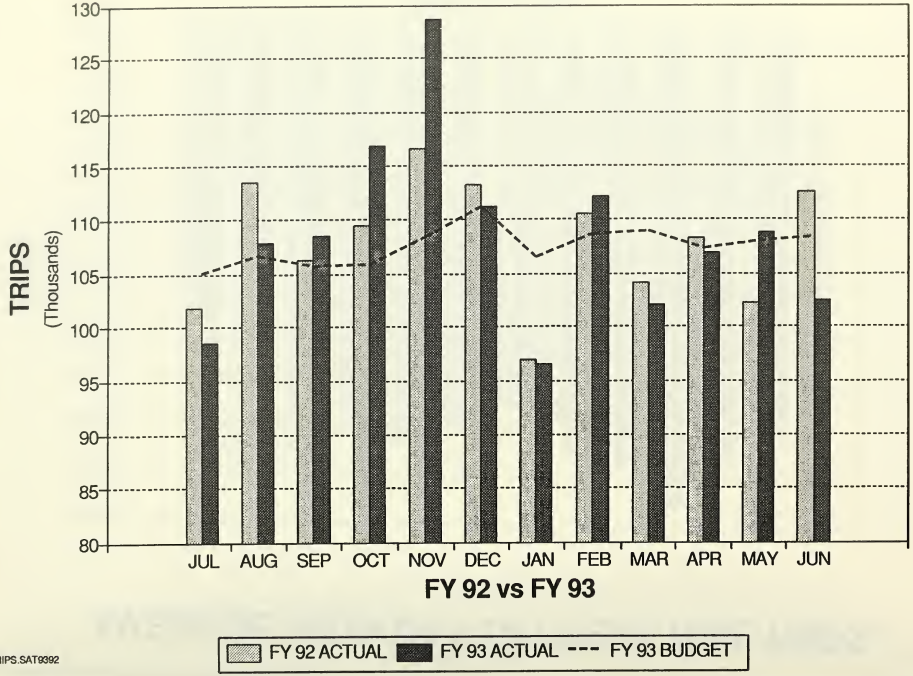

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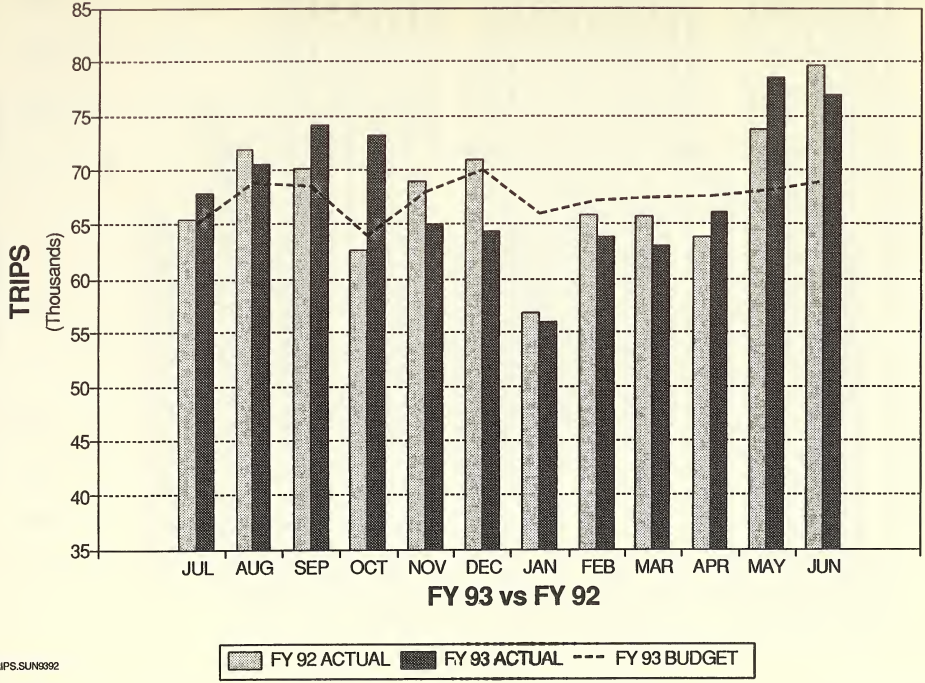
Figure 2-13

AVERAGE SUNDAY RAIL TRIPS



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EVALUATION OF DEMAND VERSUS CAPACITY

One of BART's basic service objectives is to provide adequate capacity, such that the ratio of onboard passengers to seats (i.e., load factor) averages 1.15 during peak periods. Efforts to achieve this objective are often precluded by headway constraints, which dictate maximum train frequencies, in conjunction with BART's ten-car maximum allowable train length. The net result is additional capacity cannot be provided, even when cars are available, until headways can be reduced. This is a key objective of BART's Capital Improvement Program. In advance of implementing higher frequency and capacity service, trains are sized to achieve the 1.15 load factor objective for discretionary trains. These are trains that are less than ten-cars long and can be lengthened as demand warrants.

Passenger load factors are measured at each route's maximum passenger screenline point. These are West Oakland-Embarcadero for the three transbay routes and Lake Merritt-Fruitvale for the Richmond-Fremont route. Starting in FY 93, peak ridership is now measured over a three-hour time period consisting of a peak hour and two shoulder periods, each approximately one hour, for a total of three hours. Previous fiscal years used a 2 1/2-hour time period. The three-hour period was initiated in response to spreading of peak demand, people adjust their departure times from home and work to take advantage of better travel conditions. This phenomenon has resulted in greater growth in demand during the balance of the peak period (i.e., on each shoulder) relative to the peak hour. BART has responded by adjusting capacity during the shoulders to accommodate this higher demand at the policy 1.15 load factor. After implementation of the new schedule in June 1992, scheduled car through-put past the maximum screenlines amounted to 515 (446 transbay plus 69 Richmond-Fremont) for the three-hour morning peak period.

Figure 2-14 (Morning Peak Hour Load Factors) and Figure 2-15 (Evening Peak Hour Load Factors) summarize, on a quarterly basis, load factors for transbay crossings and systemwide for all morning and afternoon peak hour trains in operation. The increase evident in the first quarter of FY 93 in Figure 2-15 (Evening Peak Hour Load Factors) resulted from a refinement of the load factor measurement techniques. Load factors during the morning peak hour tend to be somewhat lower than those in the afternoon. Detailed demand and capacity data for the morning and afternoon peak periods are presented in Figure 2-16 (Morning Peak Period Load Factors For All Trains, April-June 1993) and Figure 2-17 (Afternoon Peak Period Load Factors For All Trains, April-June 1993). Note that the reported load factors are based on capacity actually provided. For comparison purposes, scheduled capacity is also shown.

Figure 2-14

MORNING PEAK HOUR LOAD FACTORS

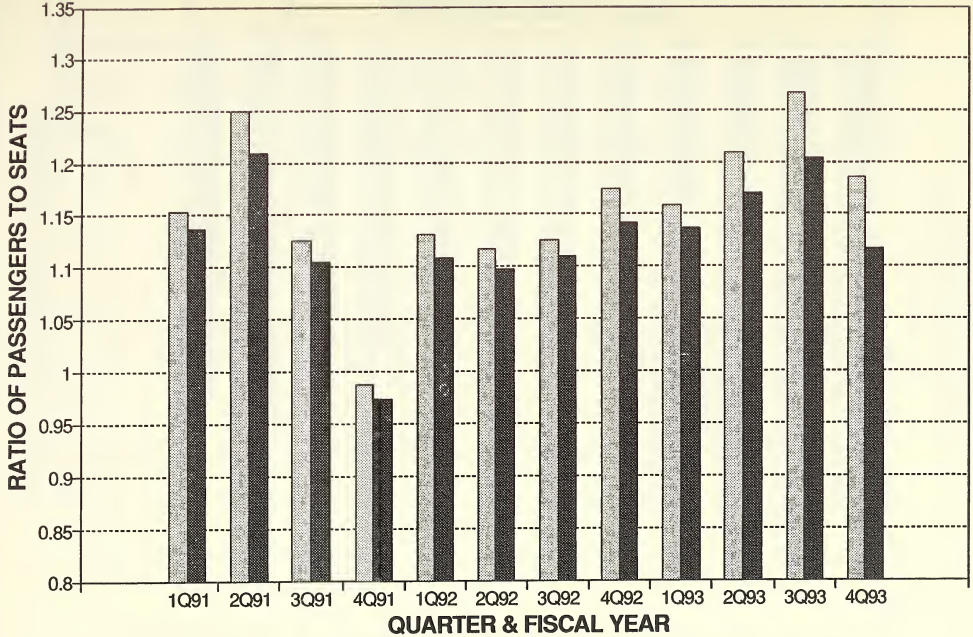

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Figure 2-15

EVENING PEAK HOUR LOAD FACTORS

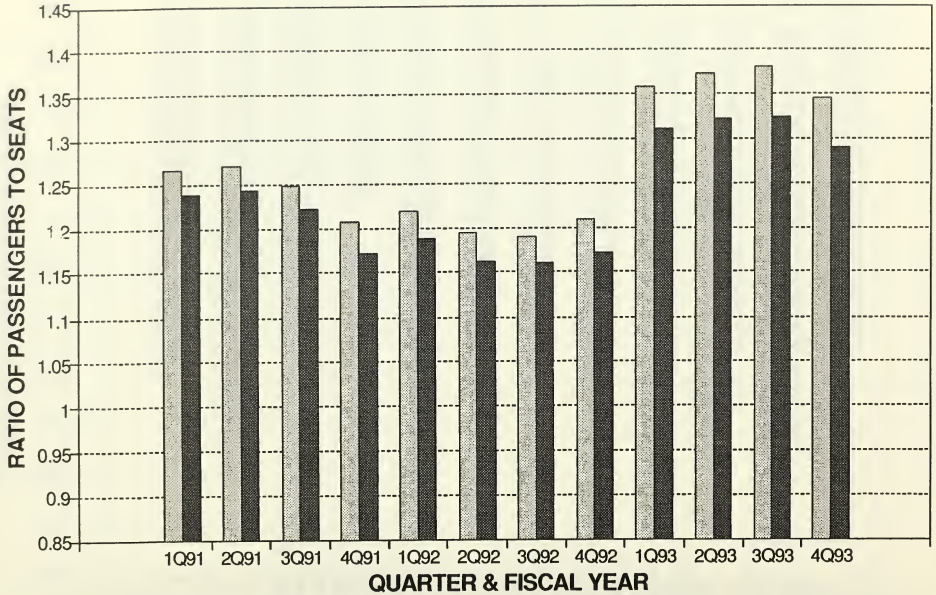

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Figure 2-16

MORNING PEAK PERIOD
LOAD FACTORS FOR ALL TRAINS *
APRIL - JUNE 1993

TRANSBAY FROM WEST OAKLAND

PERIOD/ROUTE TIME INTERVAL		TRAINS	CARS	SEATS	PASS'GRS	LOAD FACTOR
PEAK ONE HOUR:						
C/DC	S**	8.0	80.0	5,760		
(0703-0802)	A**	7.9	79.1	5,695	6,945	1.22
	%**	98.8%	98.9%	98.9%		
F/DC	S	5.0	50.0	3,600		
(0703-0802)	A	5.0	50.0	3,600	4,616	1.28
	%	100.0%	100.0%	100.0%		
R/DC	S	4.0	40.0	2,880		
(0703-0802)	A	4.0	39.6	2,854	2,842	1.00
	%	100.0%	99.1%	99.1%		
TOTAL T'BAY	S	17.0	170.0	12,240		
(0703-0802)	A	16.9	168.7	12,149	14,403	1.19
	%	99.4%	99.3%	99.3%		
BALANCE OF PEAK PERIOD:						
C/DC	S	12.0	120.0	8,640		
(0615-0702)	A	12.1	120.4	8,666	8,242	0.95
(0803-0914)	%	100.8%	100.3%	100.3%		
F/DC	S	8.0	76.0	5,472		
(0615-0702)	A	7.8	74.6	5,374	6,291	1.17
(0803-0914)	%	97.5%	98.2%	98.2%		
R/DC	S	8.0	80.0	5,760		
(0615-0702)	A	7.0	69.0	4,968	4,060	0.82
(0803-0914)	%	87.5%	86.3%	86.3%		
TOTAL T'BAY	S	28.0	276.0	19,872		
(0615-0702)	A	26.9	264.0	19,008	18,593	0.98
(0803-0914)	%	96.1%	95.7%	95.7%		
TOTAL THREE-HOUR PEAK PERIOD:						
C/DC	S	20.0	200.0	14,400		
(0615-0914)	A	20.0	199.5	14,361	15,187	1.06
	%	100.0%	99.7%	99.7%		
F/DC	S	13.0	126.0	9,072		
(0615-0914)	A	12.8	124.6	8,974	10,907	1.22
	%	98.5%	98.9%	98.9%		
R/DC	S	12.0	120.0	8,640		
(0615-0914)	A	11.0	108.6	7,822	6,902	0.88
	%	91.7%	90.5%	90.5%		
TOTAL T'BAY	S	45.0	448.0	32,112		
(0615-0914)	A	43.8	432.7	31,157	32,996	1.06
	%	97.3%	97.0%	97.0%		

TOWARDS DOWNTOWN SAN FRANCISCO FROM 16TH STREET

PERIOD/ROUTE TIME INTERVAL		TRAINS	CARS	SEATS	PASS'GRS	LOAD FACTOR
PEAK ONE HOUR:						
ALL ROUTES	S	12.0	120.0	8,640		
(0722-0821)	A	11.9	117.9	8,489	8,800	1.04
	%	99.2%	98.3%	98.3%		
BALANCE OF PEAK PERIOD:						
ALL ROUTES	S	24.0	232.0	16,704		
(0630-0721)	A	22.9	226.3	16,292	9,531	0.59
(0822-0929)	%	95.4%	97.5%	97.5%		
TOTAL THREE-HOUR PEAK PERIOD:						
ALL ROUTES	S	36.0	352.0	25,344		
(0630-0929)	A	34.8	344.2	24,781	18,331	0.74
	%	96.7%	97.8%	97.8%		

SOUTH AND WESTBOUND FROM ASHBY/ROCKRIDGE

PERIOD/ROUTE TIME INTERVAL		TRAINS	CARS	SEATS	PASS'GRS	LOAD FACTOR
PEAK ONE HOUR:						
C/DC	S	8.0	80.0	5,760		
(0651-0750)	A	8.0	80.0	5,760	7,241	1.26
	%	100.0%	100.0%	100.0%		
R/DC	S	4.0	40.0	2,880		
(0651-0750)	A	4.0	39.3	2,828	2,785	0.98
	%	100.0%	98.2%	98.2%		
F/R	S	4.0	24.0	1,728		
(0713-0812)	A	4.1	24.3	1,748	865	0.49
	%	102.5%	101.2%	101.2%		
BALANCE OF PEAK PERIOD:						
C/DC	S	12.0	120.0	8,640		
(0603-0650)	A	12.0	119.5	8,601	8,403	0.98
(0751-0902)	%	100.0%	99.5%	99.5%		
R/DC	S	8.0	80.0	5,760		
(0603-0650)	A	7.0	68.9	4,961	3,857	0.78
(0751-0902)	%	87.5%	86.1%	86.1%		
F/R	S	8.0	45.0	3,240		
(0613-0712)	A	7.9	48.0	3,456	1,019	0.29
(0813-0912)	%	98.8%	106.7%	106.7%		
TOTAL THREE-HOUR PEAK PERIOD:						
C/DC	S	20.0	200.0	14,400		
(0603-0852)	A	20.0	199.5	14,361	15,644	1.09
	%	100.0%	99.7%	99.7%		
R/DC	S	12.0	120.0	8,640		
(0603-0902)	A	11.0	108.2	7,789	6,642	0.85
	%	91.7%	90.2%	90.2%		
F/R	S	12.0	69.0	4,968		
(0613-0912)	A	12.0	72.3	5,204	1,884	0.36
	%	100.0%	104.8%	104.8%		

NORTHBOUND FROM FRUITVALE

PERIOD/ROUTE TIME INTERVAL		TRAINS	CARS	SEATS	PASS'GRS	LOAD FACTOR
PEAK ONE HOUR:						
F/DC	S	5.0	50.0	3,600		
(0713-0812)	A	4.8	48.2	3,469	4,630	1.33
	%	96.0%	96.4%	96.4%		
F/R	S	4.0	24.0	1,728		
(0713-0812)	A	4.0	35.2	2,533	2,002	0.79
	%	100.0%	146.6%	146.6%		
BALANCE OF PEAK PERIOD:						
F/DC	S	8.0	76.0	5,472		
(0613-0712)	A	7.2	67.9	4,889	5,277	1.08
(0813-0912)	%	90.0%	89.3%	89.3%		
F/R	S	8.0	45.0	3,240		
(0613-0712)	A	8.0	47.7	3,436	2,075	0.60
(0813-0912)	%	100.0%	106.0%	106.0%		
TOTAL THREE-HOUR PEAK PERIOD:						
F/DC	S	13.0	126.0	9,072		
(0613-0912)	A	12.0	116.1	8,358	9,907	1.19
	%	92.3%	92.1%	92.1%		
F/R	S	12.0	69.0	4,968		
(0613-0912)	A	12.0	82.9	5,969	4,077	0.68
	%	100.0%	120.1%	120.1%		

NOTES:

* Based on representative weekday data for ridership and train operations (for all peak period trains at their maximum load points).

** Data in rows designated by "S" are scheduled, "A" are actual, and "%" is the percent of scheduled service delivered.

Figure 2-17

AFTERNOON PEAK PERIOD
LOAD FACTORS FOR ALL TRAINS *
APRIL - JUNE 1993

TRANSBAY FROM EMBARCADERO

PERIOD/ROUTE / TIME INTERVAL		TRAINS	CARS	SEATS	PASS'GRS	LOAD FACTOR
PEAK ONE HOUR:						
C/DC	S**	8.0	80.0	5,760		
(1639-1738)	A**	8.0	79.6	5,734	7,568	1.32
	%**	100.0%	99.5%	99.5%		
F/DC	S	5.0	50.0	3,600		
(1639-1738)	A	5.0	49.8	3,587	4,896	1.36
	%	100.0%	99.6%	99.6%		
R/DC	S	4.0	40.0	2,880		
(1639-1738)	A	3.5	34.5	2,487	3,415	1.37
	%	87.5%	86.4%	86.4%		
TOTAL T'BAY	S	17.0	170.0	12,240		
(1639-1738)	A	16.5	164.0	11,808	15,879	1.34
	%	97.1%	96.5%	96.5%		
BALANCE OF PEAK PERIOD:						
C/DC	S	9.0	90.0	6,480		
(1535-1638)	A	9.2	91.6	6,598	7,422	1.12
(1740-1834)	%	102.2%	101.8%	101.8%		
F/DC	S	8.0	80.0	5,760		
(1535-1638)	A	8.1	80.5	5,799	5,563	0.96
(1740-1834)	%	101.3%	100.7%	100.7%		
R/DC	S	8.0	72.0	5,184		
(1535-1638)	A	7.7	75.6	5,446	4,883	0.90
(1740-1834)	%	96.3%	105.1%	105.1%		
TOTAL T'BAY	S	25.0	242.0	17,424		
(1535-1638)	A	25.0	247.8	17,843	17,868	1.00
(1740-1834)	%	100.0%	102.4%	102.4%		
TOTAL THREE-HOUR PEAK PERIOD:						
C/DC	S	17.0	170.0	12,240		
(1535-1834)	A	17.2	171.3	12,332	14,990	1.22
	%	101.2%	100.8%	100.8%		
F/DC	S	13.0	130.0	9,360		
(1535-1834)	A	13.1	130.4	9,386	10,459	1.11
	%	100.8%	100.3%	100.3%		
R/DC	S	12.0	112.0	8,064		
(1535-1834)	A	11.2	110.2	7,933	8,298	1.05
	%	93.3%	98.4%	98.4%		
TOTAL T'BAY	S	42.0	412.0	29,664		
(1535-1834)	A	41.5	411.8	29,651	33,747	1.14
	%	98.8%	100.0%	100.0%		

TOWARDS DALY CITY FROM CIVIC CENTER

PERIOD/ROUTE / TIME INTERVAL		TRAINS	CARS	SEATS	PASS'GRS	LOAD FACTOR
PEAK ONE HOUR:						
ALL ROUTES	S	13.0	130.0	9,360		
(1648-1747)	A	12.0	119.7	8,620	7,987	0.93
	%	92.3%	92.1%	92.1%		
BALANCE OF PEAK PERIOD:						
ALL ROUTES	S	23.0	202.0	14,544		
(1545-1647)	A	23.4	212.1	15,271	9,256	0.61
(1748-1844)	%	101.9%	105.0%	105.0%		
TOTAL THREE-HOUR PEAK PERIOD:						
ALL ROUTES	S	36.0	332.0	23,904		
(1545-1844)	A	35.4	331.8	23,891	17,243	0.72
	%	98.4%	99.9%	99.9%		

NORTH AND EASTBOUND FROM MACARTHUR

PERIOD/ROUTE / TIME INTERVAL		TRAINS	CARS	SEATS	PASS'GRS	LOAD FACTOR
PEAK ONE HOUR:						
C/DC	S	8.0	80.0	5,760		
(1655-1754)	A	7.9	78.9	5,681	7,496	1.32
	%	98.8%	98.6%	98.6%		
R/DC	S	4.0	40.0	2,880		
(1655-1754)	A	3.5	35.5	2,553	3,446	1.35
	%	87.5%	88.8%	88.8%		
F/R	S	4.0	21.0	1,512		
(1635-1734)	A	4.0	23.6	1,702	952	0.56
	%	100.0%	112.6%	112.6%		
BALANCE OF PEAK PERIOD:						
C/DC	S	9.0	90.0	6,480		
(1551-1654)	A	9.2	91.6	6,598	7,563	1.15
(1755-1850)	%	102.2%	101.8%	101.8%		
R/DC	S	8.0	72.0	5,184		
(1551-1654)	A	7.5	72.9	5,249	4,480	0.85
(1755-1850)	%	93.8%	101.3%	101.3%		
F/R	S	8.0	36.0	2,592		
(1533-1634)	A	8.0	44.5	3,201	1,170	0.37
(1735-1832)	%	100.0%	123.5%	123.5%		
TOTAL THREE-HOUR PEAK PERIOD:						
C/DC	S	17.0	170.0	12,240		
(1551-1850)	A	17.1	170.5	12,279	15,059	1.23
	%	100.6%	100.3%	100.3%		
R/DC						
(1551-1850)	S	12.0	112.0	8,064		
	A	11.0	108.4	7,802	7,926	1.02
	%	91.7%	96.8%	96.8%		
F/R						
(1533-1832)	S	12.0	57.0	4,104		
	A	12.0	68.1	4,903	2,122	0.43
	%	100.0%	119.5%	119.5%		

SOUTHBOUND FROM LAKE MERRITT

PERIOD/ROUTE / TIME INTERVAL		TRAINS	CARS	SEATS	PASS'GRS	LOAD FACTOR
PEAK ONE HOUR:						
F/DC	S	5.0	50.0	3,600		
(1654-1753)	A	5.0	49.8	3,587	4,539	1.27
	%	100.0%	99.6%	99.6%		
F/R	S	4.0	27.0	1,944		
(1640-1739)	A	3.8	25.8	1,859	1,760	0.95
	%	95.0%	95.6%	95.6%		
BALANCE OF PEAK PERIOD:						
F/DC	S	8.0	80.0	5,760		
(1550-1653)	A	8.2	81.5	5,865	5,250	0.90
(1754-1849)	%	102.5%	101.8%	101.8%		
F/R	S	8.0	37.0	2,664		
(1525-1639)	A	8.2	46.3	3,332	2,386	0.72
(1740-1824)	%	102.5%	125.1%	125.1%		
TOTAL THREE-HOUR PEAK PERIOD:						
F/DC	S	13.0	130.0	9,360		
(1550-1849)	A	13.2	131.3	9,452	9,789	1.04
	%	101.5%	101.0%	101.0%		
F/R	S	12.0	64.0	4,608		
(1525-1824)	A	12.0	72.1	5,191	4,146	0.80
	%	100.0%	112.7%	112.7%		

NOTES:

* Based on representative weekday data for ridership and train operations (for all peak period trains at their maximum load points).

** Data in rows designated by "S" are scheduled, "A" are actual, and "%" is the percent of scheduled service delivered.

EVALUATION OF FINANCIAL PERFORMANCE

BART's $212.97 million operating budget for fiscal year 1993 is summarized in Figure 2-18 (BART FY 93 Operating Budget Performance Summary). This income and expense statement reflects policy choices and clearly identifiable, quantifiable management objectives. The approach underscores the importance of making tradeoffs and establishing priorities for resource use, by emphasizing results and strengthening accountability. The FY 93 operating budget carried forward, from the prior fiscal year, some high-visibility programs which have a direct and tangible benefit to BART riders. These include station rehabilitation and A- and B-car rehabilitation. The budget reflected BART's major themes: customer service, extensions support, system rehabilitation, operating efficiencies, and employee development. Key budget parameters relative to the prior fiscal year included: same service frequency with faster end to end run times (5 to 6 minutes savings versus FY 92), timed train meets at MacArthur and 12th Street stations on Sundays and during "X" service, and continuation of fares at 1986 levels (BART's last fare increase was on January 1, 1986).

An evaluation of how well BART performed relative to its FY 93 operating budget is presented below. As an overview, refer to Figure 2-18 (BART FY 93 Operating Budget Performance Summary), which summarizes BART's actual income and expense relative to budget for FY 93.

Passenger and Other Operating Revenues

Revenue from passenger fares includes both rail and BART Express Bus, and amounted to $102.26 million in FY 93, versus a budget of $100.64 million (1.6% favorable). Rail fare revenue in FY 93 was $101.03 million, versus a budgeted $99.63 million (1.4% above budget). The budgeted discounts for senior/student/handicapped tickets in FY 93 were $13.29 million, versus an actual of $15.54, or $2.25 million unfavorable. Considerable effort, including issuance of citations by BART police, has been made to curb fraudulent use of discount tickets. Fare revenue from BART Express Bus passengers was 22.3% above budget in FY 93 ($1.23 million actual versus $1.01 million budgeted).

During FY 93, revenue from sources other than passenger fares amounted to $9.78 million, or 1.9% above a budget level of $9.61 million. Total interest earnings were below budget ($6.07 million actual versus $6.56 million budgeted), as was advertising revenue (($1.19 million actual versus $1.24 million budgeted), and fines and forfeitures revenue ($0.23 million versus $0.44 million). Concession revenue of $1.10 million was 23.9% above the budgeted figure of $0.89 million. Remaining non-passenger revenue line items were favorable relative to budget. These include fiber optics revenue, rent on buildings and other property, and parking revenue (Lake Merritt Station only).

Labor and Non-Labor Expense

Net labor expense during FY 93 was $150.05 million versus $154.14 million budgeted. BART's total staffing at the end of June 1993 was 2,774 authorized positions (operating and capitalized,

full- and part-time), with 130 of those vacant. Figure 2-19 (BART Position Control Status Report, Month Ending June 1993) summarizes the status of BART's workforce relative to authorized positions. While bottom-line labor expense was favorable, over-time expense was 23.3% above budget ($8.14 million versus $6.60 million budgeted). This variance is due to vacancies and a hiring freeze which was in effect from March 11, 1993 through the end of the fiscal year.

Non-labor expense for FY 93 was 2.6% over budget.

The Board later revised the FY 93 adopted budget by authorizing the transfer of $1.8 million to nonlabor expense from net labor expense and by allocating $3,332,000 to capital.

Figure 2-18

BART FY 93 OPERATING BUDGET PERFORMANCE SUMMARY *

	ADOPTED BUDGET	ACTUAL	$ VAR	% VAR
REVENUES				
GROSS PASSENGER REVENUE	$ 113,930.9	$ 117,804.0	$ 3,873.1	3.4
DISCOUNTS & DEDUCTIONS	(13,290.0)	(15,539.3)	(2,249.3)	16.9
NET PASSENGER REVENUE	**100,640.9**	**102,264.7**	**1,623.8**	1.6
OTHER OPERATING REVENUE	9,605.3	9,783.7	178.4	1.9
TOTAL NET REVENUE	**110,246.2**	**112,048.4**	**1,802.2**	1.6
LABOR EXPENSES				
HOURLY REGULAR TIME	**102,520.3**	**100,235.6**	**2,284.7**	2.2
HOURLY OVERTIME	5,515.6	6,806.9	(1,291.3)	(23.4)
SUBTOTAL HOURLY	**108,035.9**	**107,042.5**	**993.4**	0.9
SALARIED REGULAR TIME	66,610.6	60,850.5	5,760.1	8.6
SALARIED OVERTIME	1,082.4	1,328.2	(245.8)	(22.7)
SUBTOTAL SALARIED	**67,693.0**	**62,178.7**	**5,514.3**	8.1
TEMPORARY HELP (AGENCY)	582.4	523.4	59.0	10.1
GROSS LABOR	**176,311.3**	**169,744.6**	**6,566.7**	3.7
CAPITALIZED LABOR	(21,437.2)	(17,894.7)	(3,542.5)	(16.5)
OTHER LABOR CREDITS	(732.0)	(1,804.2)	1,072.2	146.5
NET LABOR	**154,142.1**	**150,045.7**	**4,096.4**	2.7
COST CENTER EXPENSES				
MATERIAL USAGE	1,443.1	1,594.6	(151.5)	(10.5)
PROFESSIONAL & TECHNICAL	8,559.6	7,383.5	1,176.1	13.7
TRAVEL	422.5	250.5	172.0	40.7
MISCELLANEOUS	7,509.2	8,694.4	(1,185.2)	(15.8)
SUBTOTAL COST CENTERS	**17,934.4**	**17,923.0**	**11.4**	0.1
DIRECT PROGRAM EXPENSE				
MATERIAL USAGE	7,834.4	9,612.2	(1,777.8)	(22.7)
RENTAL & MAINT. CONTRACTS	3,049.2	3,437.2	(388.0)	(12.7)
PROFESSIONAL & TECHNICAL	169.2	162.3	6.9	4.1
EXPRESS BUS SERVICE	6,513.0	6,455.7	57.3	0.9
SHUTTLE BUS SERVICE	271.7	112.7	159.0	58.5
BUS TRANSFER AGREEMENTS	1,579.5	1,511.9	67.6	4.3
ELECTRIC POWER	20,518.2	20,036.4	481.8	2.3
OTHER UTILITIES	955.0	1,092.0	(137.0)	(14.3)
SUBTOTAL PROGRAMS	**40,890.2**	**42,420.4**	**(1,530.2)**	(3.7)
TOTAL NON LABOR	**58,824.6**	**60,343.4**	**(1,518.8)**	(2.6)
TOTAL OPERATING EXPENSES	**212,966.7**	**210,389.1**	**2,577.6**	1.2
OPERATING SURPLUS/(DEFICIT)	(102,720.5)	(98,340.7)	4,379.8	4.3
FINANCIAL ASSISTANCE				
SALES TAX REVENUE	108,473.9	107,889.6	(584.3)	-0.5
PROPERTY TAX REVENUE	12,020.0	11,591.6	(428.4)	-3.6
OTHER FINANCIAL ASSISTANCE	487.0	500.0	13.0	2.7
DEBT SERVICE ALLOCATIONS	(18,260.4)	(18,309.1)	(48.7)	-0.3
CAPITAL ALLOCATIONS	0.0	(3,332.0)	(3,332.0)	n/a
TOTAL FINANCIAL ASSISTANCE	**102,720.5**	**98,340.1**	**(4,380.4)**	-4.3
NET OPERATING RESULT	$ 0.0	$ (0.6)	$ (0.6)	0.0
FAREBOX RATIO	47.26 %	48.61 %		
OPERATING RATIO	51.77 %	53.26 %		
PASSENGER MILES	915,830.0	931,235.0		
RAILCOST PER PASSENGER MILE	22.3 ¢	21.7 ¢		

* UNFAVORABLE VARIANCES IN BRACKETS

Figure 2-19

POSITION CONTROL STATUS REPORT
AS OF JUNE 1993

BUDGETED	REP	NON-REP	TOTAL
FULL TIME	2,334	397	2,731
PART TIME	43	0	43
TRAINEE/APPRENTICE	0	0	0
TOTAL BUDGETED	2,377	397	2,774
POSITIONS FILLED			
FULL TIME	2,258	346	2,604
OPERATING	2,158	197	2,355
CAPITAL	100	149	249
PART TIME	40	0	40
OPERATING	40	0	40
CAPITAL	0	0	0
TOTAL FILLED	2,298	346	2,644
POSITIONS VACANT			
FULL TIME	81	45	126
OPERATING	67	18	85
CAPITAL	14	27	41
PART TIME	4	0	4
OPERATING	4	0	0
CAPITAL	0	0	0
TRAINEE/APPRENTICE	0	0	0
TOTAL VACANT	85	45	130

Financial Assistance and Capital Allocations (from operating sources)

BART's budgeted sales tax revenue for FY 93 reflects assumptions made in the Spring of 1992, regarding the extent and duration of the recession. Time has proven the budget forecasts to be optimistic. Loss of jobs, a decline in per capita income, and other unfavorable trends for key economic indicators reflect the pervasiveness of the recession and the need for *belt tightening* at all levels. In general, reduced consumer spending translated into lower sales tax revenue for BART. During FY 93, BART received sales tax revenue of $107.89 million, versus a budgeted $108.47 million. Property tax receipts were below budget ($11.59 million actual versus $12.02 budgeted). BART also received a $0.50 million STA/TDA allocation from MTC during FY 93.

Allocations from BART's operating budget for servicing long-term debt in FY 93 were relatively in line with the budgeted payment schedules ($18.31 million actual versus a budgeted level of $18.26 million). BART also allocated $3.33 million to capital projects from operating sources in FY 93.

Net Operating Result and Financial Indicators

Revenues above budget (+ $1.80 million) and expense below budget (- $2.58 million) offset unfavorable financial assistance net of capital allocations (- $4.38 million), enabling BART to achieve a balanced budget for FY 93.

As a result of the favorable financial results, budgeted levels for all of BART's key financial indicators were exceeded in FY 93. These include the rail farebox ratio (49.9% actual versus 48.7% budgeted), the system operating ratio (53.3% actual versus 51.8% budgeted), and the rail cost per passenger mile (21.7¢ actual versus 22.3¢ budgeted). Figure 2-20 (Rail Farebox Ratio), Figure 2-21 (System Operating Ratio), and Figure 2-22 (Rail Cost Per Passenger Mile) present BART's record for achieving budgeted levels for these three key financial indicators. Figure 2-23 (BART Express Bus Farebox Ratio) summarizes BART's Express Bus operations.

Figure 2-20

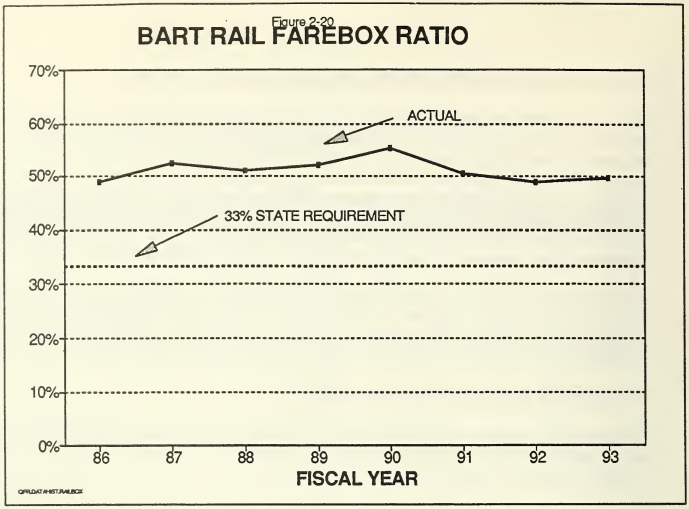


Figure 2-21

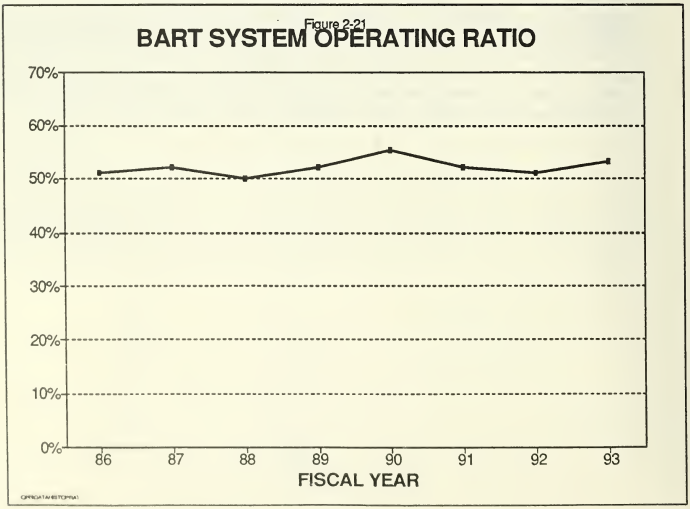


Figure 2-22

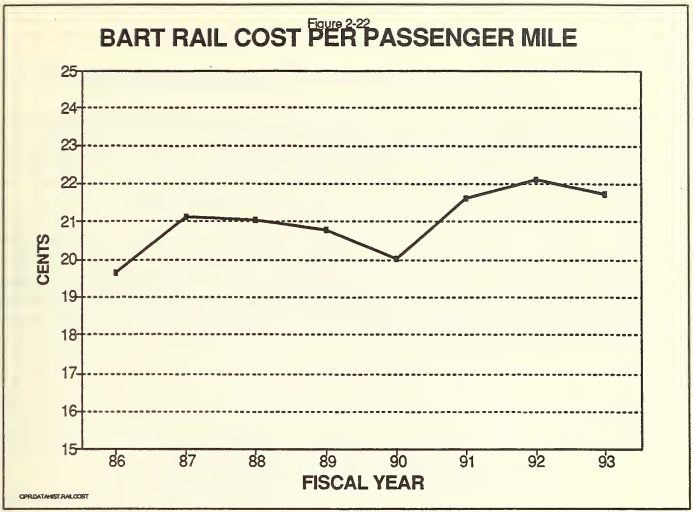
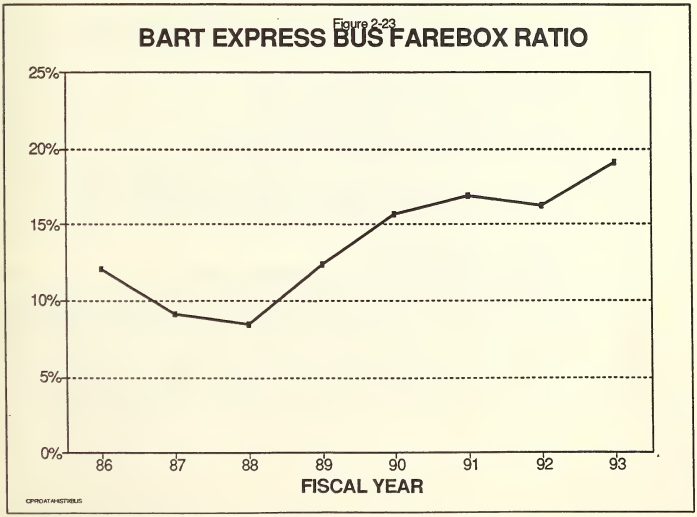


Figure 2-23



EVALUATION OF KEY CAPITAL PROGRAM ELEMENTS

BART's Capital Improvement Program (CIP) document is published annually, and contains financial and implementation status information regarding proposed future District capital projects. Without duplicating the information presented in the CIP, the following section highlights key projects needed to expand BART service and sets the stage for Chapter 3, which presents BART's planned service improvements over the next ten years.

BART's efforts to increase system capacity and bring extensions online are based on well documented plans, developed and updated for more than a decade. The projects required for BART to expand service fall into two basic groups: car requirements and headway reduction. Projects within these groups are summarized in Figure 2-24 (Key Capital Program Projects Required For Expanded Service) and are discussed in the following text. More detail is provided in Chapter 3 and in the CIP document.

Figure 2-24

KEY CAPITAL PROJECTS IN SUPPORT OF EXPANDED SERVICE

VEHICLE RELATED PROJECTS

- Current contract for 80 new cars
- Two options for 170 more cars
- Car rehabilitation & A/B conversions

HEADWAY RELATED PROJECTS

- STEP modifications
- Advanced automatic train control system

Current Fleet And Programmed New Car Procurement

BART's current fleet of revenue vehicles consists of 589 cars: 136 A-cars (with cab controls), 303 B-cars (without cab controls), and 150 C-cars (with cab controls). The current schedule calls for a total of 453 cars to provide weekday service, including revenue-service trains and ready spares. Of the remaining 136 vehicles, 21 are in long-term storage *(these are the 21 A-cars which presently cannot be used effectively, because A-car requirements are a function of the number of online trains)*, 11 are accident vehicles awaiting repair, 3 are in for rehabilitation, and 101 vehicles are in preventative maintenance at any given time.

The need for additional cars is based on future ridership growth, as is discussed in Chapter 3. This includes the current new car contract with Morrison-Knudsen, signed in March 1992, which calls for the delivery of 80 vehicles between March and December 1995 at the rate of about 25 cars each calendar quarter. The first option for 70 additional cars (20 of which would be C-cars with cab controls and 50 B-cars without cab controls) may be exercised with no or little interruption of the car delivery schedule from the original 80-car order. A second option may be exercised for 100 more cars, all of which would be similar to B-cars, without cab controls. Should both of these options be exercised, BART's fleet would grow by 250 cars, to a total of 839 vehicles, by September 1997. Funding is not currently available to exercise either of these options, however.

Programmed Projects Needed To Reduce Headways

Under the District's Capacity Expansion Program, key projects implemented since the late 1970s have enabled BART to reduce headways and increase the number of online cars and trains. These projects are well documented in prior year SRTP/CIPs, and include the addition of the KE track, Daly City turnback and yard, and C-cars. As of June 1993, the system can support an average minimum service schedule headway of 180 seconds, or 20 trains per hour in one direction. Higher service levels (i.e., higher frequency service at reduced train headways) are not possible until the System Throughput Enhancement Program (STEP) is complete. Once the projects under this program, now scheduled for completion in December 1994, are in place BART will be able to operate at a minimum service schedule headway of 135 seconds, or 24 trains per hour in one direction. Implementation of service at headways below 135 seconds is under investigation as part of the Advanced Automatic Train Control (AATC) project, which would allow BART to operate at a minimum scheduled headway of 120 seconds or less.

Implementation of the above projects supports service for BART's Phase I extensions. For SRTP planning purposes, the service start dates for each extension are summarized below, in Figure 2-25 (Phase I BART Extensions). These dates may be revised in response to actual implementation progress, funding status, and other factors. As shown, three of the Phase I extensions are scheduled to open for service within a four month period starting in September 1995: North Concord (September), Colma (September), and East Dublin/Pleasanton (December). Extensions to West Pittsburg and Warm Springs are currently scheduled to open in March 1997 and December 1999, respectively. For planning purposes, a West Dublin/Pleasanton Station is

assumed to be on line by September 1998. Finally, the remaining three-station extension south of Colma to San Francisco Airport is slated to open by January 2002.

Figure 2-25

PHASE I BART EXTENSIONS *
PROGRAMMED START OF SERVICE

September 1995	North Concord
September 1995	Colma
December 1995	East Dublin
March 1997	West Pittsburg
September 1998	West Dublin
December 1999	Warm Springs
January 2002	San Francisco Airport

* These dates may be revised in response to actual implementation progress, funding status, and other factors.

CHAPTER 3

PLANNED SERVICE AND PROGRAMS

Within the next ten years, BART will be pursuing an ambitious program of rehabilitating the 34 station/71-mile core system, and adding new service on an expanded, 45 station/106 mile system. Essential to this effort are the funds to support implementation of capital improvements, and ongoing funding for operations and maintenance. These needs will be addressed in Chapter 4. This chapter presents BART's service plans for the next decade. The final section of this chapter, entitled *Strategic Sketch Plan For The Future*, supplements the basic SRTP with a broader vision of BART's role.

BART's future service levels and corresponding capital program are planned to support the level of ridership the system is expected to carry. The ridership forecast, therefore, is the basis of the planning process. Because of the important linkage between changes in regional population and employment and BART ridership, the following presentation begins with the future outlook for regional growth.

RIDERSHIP FORECAST

BART's service plan and capital program are based on *expectations* of future ridership. Ridership projections are generated by the 1991 BART Ridership Forecasting Model, developed by Manuel Padron & Associates (MPA), revised to reflect FY 93 actual figures. MPA's base assumptions are consistent with those used by MTC and ABAG for population and employment growth and for regional travel. Population and employment projections used in forecasting BART ridership are summarized in Figure 3-1 (Regional Population Forecasts) and Figure 3-2 (Regional Employment Forecasts).

The revised MPA model forecast ridership figures for each fiscal year. From these fiscal year ridership figures, quarterly forecasts were developed to more closely represent the opening of each extension and other service improvements. This forecast is essential for analyzing service improvements versus demand. [Refer to *Appendix A: BART Service Expansion and Key System Components, Headway Reduction and Extensions*, which presents the details of the service plan analysis.] The average weekday ridership for FY 03 in this SRTP is projected to be 366,622 trips, when all Phase I extensions are in service. Relative to FY 93, this represents an average growth rate of 4.3% annually. Ridership growth on the core system alone is projected to be 1.5% annually.

Figure 3-1
REGIONAL POPULATION FORECASTS

COUNTY	1990	1995	2000	2005
San Francisco	723,959	737,400	766,100	770,700
Alameda	1,279,182	1,347,000	1,426,200	1,508,300
Contra Costa	803,732	885,500	970,700	1,037,400
District Subtotal	**2,806,873**	**2,969,900**	**3,163,000**	**3,316,400**
San Mateo	649,623	682,550	717,250	732,100
Santa Clara	1,497,577	1,588,750	1,700,050	1,763,350
Marin	230,096	242,900	254,150	262,750
Solano	340,421	405,100	480,500	524,000
Napa	110,765	117,200	125,550	134,050
Sonoma	388,222	426,800	465,750	501,100
Region Total	**6,023,577**	**6,433,200**	**6,906,250**	**7,233,750**

Source: Projections 92, Association of Bay Area Governments

Figure 3-2
REGIONAL EMPLOYMENT FORECASTS*

COUNTY	1990	1995	2000	2005
San Francisco	583,960	571,070	615,720	659,550
Alameda	622,230	630,080	704,190	777,540
Contra Costa	301,260	311,770	357,420	404,250
District Subtotal	**1,507,450**	**1,512,920**	**1,677,330**	**1,841,340**
San Mateo	319,150	336,760	369,840	387,080
Santa Clara	861,470	849,900	947,140	1,050,230
Marin	103,030	108,530	120,260	128,750
Solano	119,440	128,880	159,200	188,290
Napa	48,610	52,480	60,890	69,380
Sonoma	155,290	177,010	204,190	233,270
Region Total	**3,114,440**	**3,166,480**	**3,538,850**	**3,898,340**

*Total Jobs
Source: Recession Update--Projections 92, Association of Bay Area Governments

Regional Population Growth

Assumptions for regional population include constant year-to-year growth throughout the current ten-year period, and a tapering effect sometime after 2010. The 1990 population base, used in the MPA forecasting model for the nine-county Bay Area, is 6.0 million. By the year 2005, population in the nine counties is projected to grow 1.2% per year to 7.2 million. In comparison, the population for the current three-county BART District is projected to grow 1.1% annually, from a 1990 base of 2.8 million to 3.3 million in 2005. Within the current BART District, the highest average annual percentage gain in population is for Contra Costa county at 1.7% between 1990 and 2005. In the same period, Alameda and San Francisco county populations are forecast to increase at average annual rates of 1.1% and 0.4%, respectively.

Regional Employment Growth

In light of the recent economic conditions, ABAG revised its earlier 1992 forecast of employment, and issued a *Recession Update* in December 1992. This most recent information projects the number of jobs in the nine-county Bay Area to grow 1.5% annually, from a base of 3.1 million jobs in 1990 to 3.9 million in 2005. The three BART counties are expected to experience slightly lower growth, at 1.3% per year, from a base of 1.5 million jobs to 1.8 million. This lower growth versus the nine-county region is primarily due to a relatively low employment growth forecast for San Francisco at 0.8% per year versus 2.0% for Contra Costa county and 1.5% for Alameda county. Previous ABAG projections, used in the 1991 MPA model, show a slightly more optimistic growth rate of 2.1% per year for the nine-county area and 1.9% for the three-counties.

Additional Factors Influencing BART Ridership

Other key assumptions, used by MPA for forecasting BART ridership, include BART fares, travel times (highway and BART), station access, and start of extensions service. Note that the ridership forecast revision includes the effect of pushing back the assumed opening date of the Warm Springs extension from March 1998 (as identified in BART's 1992 SRTP) to December 1999. Base ridership forecasts were developed using *current* BART fares (i.e., as of January 1986) throughout the ten year planning period. Travel times assumed the faster BART run times which took effect in June 1992, and degradation of auto travel times, reflecting increased highway congestion as growth in demand outstrips programmed highway improvements.

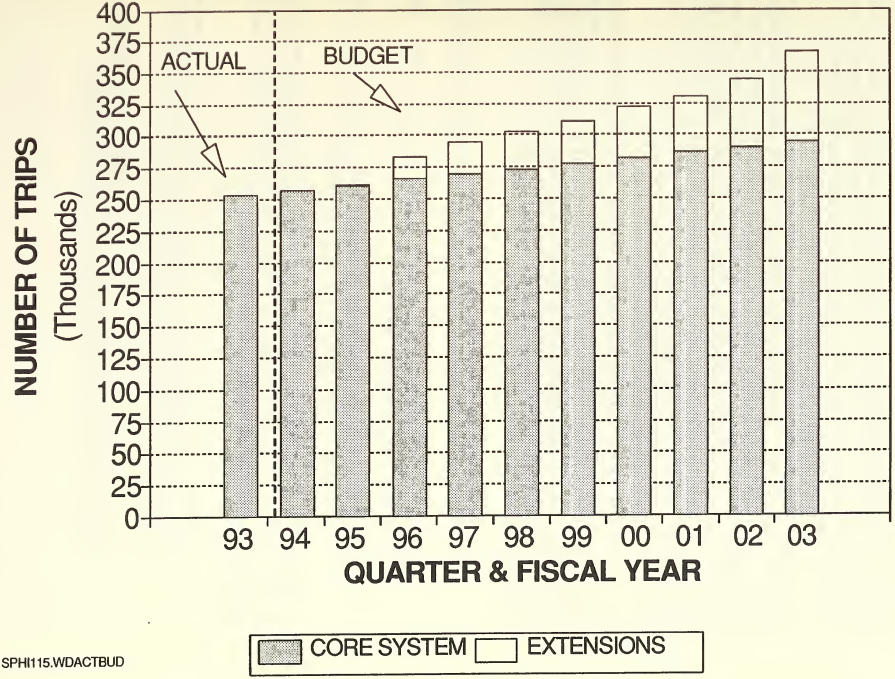
The implicit assumptions regarding access to BART includes no significant change to the relationship between the supply and demand for station parking. It is also assumed that transit services operated by other Bay Area agencies which interface with BART will continue at current levels, *except* BART Express Bus service. It is assumed that service on portions of BART Express Bus routes which coincide with BART extensions will be discontinued when rail service begins. Assumptions for planning purposes, regarding the start of service for each of the Phase I extensions, include the schedule identified in Figure 2-24 (Phase I BART Extensions, Programmed Start of Service) in Chapter 2. For planning purposes, an *external* station is assumed for the San Francisco Airport extension, which is programmed to open by January 2002. Additionally, the extension to Dublin/Pleasanton is assumed to open in December 1995 with two stations: Castro Valley and East Dublin. The West Dublin Station is assumed to be a *non-operational shell*, to be brought online by September 1998.

Average Weekday Ridership

Average weekday ridership for the current ten year planning timeframe is projected to increase 4.3% annually, from 257,724 trips in FY 94 to 366,622 trips in FY 2003, when all Phase I BART extensions are in service (refer to Figure 3-3, Actual and Forecast Weekday Trips). The opening of the first of the Phase I extensions, in FY 96, is forecast to increase ridership 7.8% over FY 95 (283,332 riders in FY 96 versus 262,752 in FY 95). It is projected that ridership on the extensions in FY 03 will average approximately 72,000 weekday trips. More than half of extension ridership is expected to occur on the San Francisco Airport extension (i.e., 42,000 weekday trips, or 58% of all extension trips in FY 03). Ridership on BART's 71-mile core system is projected to be on the order of 295,000 weekday trips, which represents 1.5% growth per year throughout the ten-year period.

Figure 3-3

ACTUAL & FORECAST WEEKDAY TRIPS



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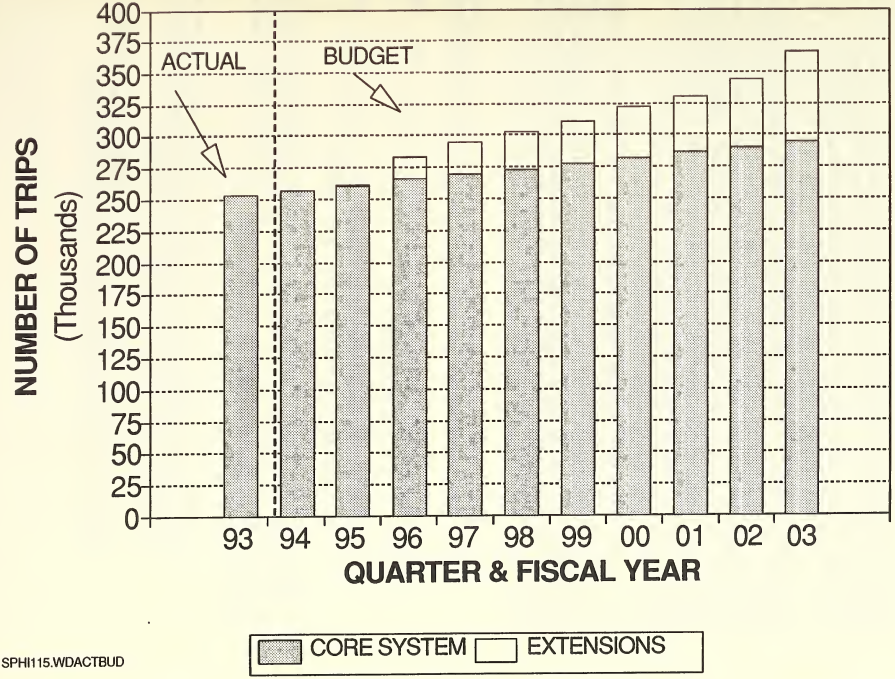

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RAIL SERVICE EXPANSION AND SUPPORTING CAPITAL IMPROVEMENTS

The Capital Improvement Program (CIP), which accompanies this SRTP, lists all 250 projects, totalling $4.27 billion, which the District would implement if funding were available. However, a program of this size is currently beyond the level of funding which can reasonably be assumed to be available over the next ten years. Therefore, in accordance with the approach being taken by the Metropolitan Transportation Commission (MTC) in its development of the 20-year Regional Transportation Plan, BART's CIP is divided into two "tracks", into which projects are assigned based on priority. Track One comprises the most essential projects, and sets forth a financial plan for funding those projects. BART's Track One includes all Priority 1 and Priority 2 projects. Track Two includes Priority 3, 4 and 5 projects, for which funding cannot currently be identified in the next ten years. Further discussion of the "track" organization of BART's capital program, along with definitions of the five levels of priority, can be found in the CIP document. The discussion presented here is limited to certain key projects which will directly support planned higher service levels in the future.

BART's rail service expansion plan is summarized in Figure 3-4 (BART Service Expansion, Headway Reduction and Extensions). As shown, expansion is to take place over the next ten years to insure that sufficient BART capacity is available to achieve the 1.15 policy load factor during peak periods, to accommodate a projected gain in ridership of about 50%, from just over 250,000 weekday trips today to 370,000 by the end of FY 03. (Refer to Figure 3-5, Ridership Growth and Car Requirements.) This expansion plan includes:

1. Reduction of the minimum scheduled headway capability from three minutes currently (i.e., 20 trains per hour) to two minutes or less (30 trains per hour or more) by FY 99.

2. Expansion of BART's fleet by 335 cars, from 589 cars currently to 924. (Refer to Figure 3-6, BART Fleet Expansion.)

3. The addition of 11 new stations and 35 miles of double mainline track for BART's Phase I extensions in the East Bay and on the Peninsula.

To support this plan, BART will aggressively seek the requisite funding as part of the grant approval process for implementing the essential elements of BART's Capital Improvement Program. The following is a summary of the improvements required for system expansion and increased service levels:

1. Rehabilitating the original 439 A- and B-cars, and procuring up to 150 new vehicles to meet growth in demand on the core system and the 124 new cars initially needed for extensions. (61 cars short of the projected 924 needed.)

2. Rehabilitating stations, including replacement of Automatic Fare Collection (AFC) equipment and replacement/rehabilitation of escalators and elevators.

3. Replacing and rehabilitating mainline equipment and components, including running rail and traction power upgrades, to support higher service levels.

4. Replacing and rehabilitating train controls and communications equipment, including the Advanced Automatic Train Control system (AATC), the next generation control system (Nxtgen--which includes essential supervisory control and data acquisition computer systems), and a new multi-frequency, systemwide radio network.

5. Improving system access by expanding parking capacity at stations as presented in Figure 3-7 (Parking Spaces FY 93 to FY 03 -- Existing and Planned Rail Stations), implementing BART's Accessibility Plan (including the ADA Paratransit and Key Station Plans), continuing to coordinate the service schedules of BART Express Bus and other connecting transit providers with BART rail, and supporting state clean air standards by introducing electric station cars. Additionally, BART will be seeking to implement diesel powered commuter rail service (called *FastTrak*, and designed along the lines of MetroLink service in Southern California) over conventional rail trackage, to feed BART stations and serve high density activity centers directly.

6. In addition to efforts relating to AATC, BART will continue to investigate new methods for increasing operating efficiencies through research, development, and demonstrations, including superconducting magnetic energy storage (SMES) and the electric station cars demonstration noted above.

Figure 3-4
BART HEADWAY REDUCTION AND CAPACITY EXPANSION

HEADWAY SERVICE CHANGE DATE	MINIMUM HEADWAY CAPABILITY (seconds)	MINIMUM SERVICE HEADWAY (seconds)	EQUIVALENT MAX TRAINS PER HOUR	NUMBER OF ROUTES	PEAK IN-SERVICE TRAINS	PEAK IN-SERVICE CARS*	TOTAL BART FLEET
CURRENT	180	210	17	4	43	453	589
DEC 95	135	160	22	5	51	555	694
SEP 98	120	150	24	5	55	601	794
JAN 02	120	135	26	5	67	717	894
JUN 03	120	135	26	5	72	762	924

* NOTE: Peak car requirements include 56 ready spare cars for current operations through the period until November 1995. When service to East Dublin begins in December 1995, the ready spare requirement increases to 66 cars.

Figure 3-5

RIDERSHIP GROWTH & CAR REQUIREMENTS

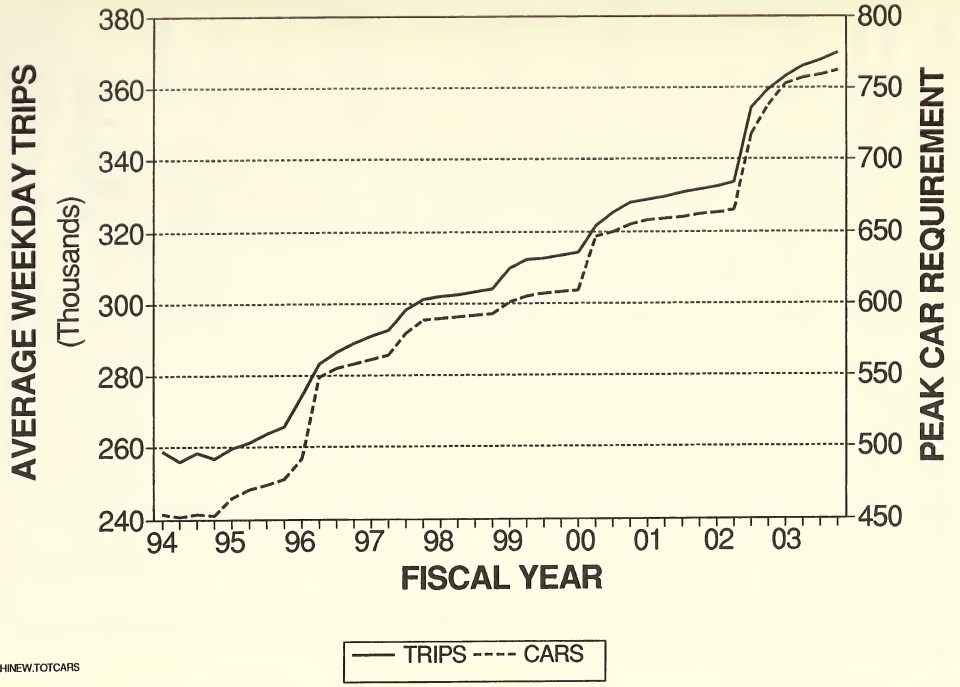

FIGURE 3-6
BART FLEET EXPANSION

CORE SYSTEM	FY 94	FY 03
Peak Screenline Trips	32,852	47,400
In-Service Cars Required @ 1.15 LF	397	572
Ready Spare Cars	56	66
PM Cars @ 17.5%	108	162
Unusable A-Cars	20	0
Other Cars	8	0
Total Cars	**589**	**800**
EXTENSIONS		
Cars to Fill Slots	--	124
Total Cars Required	589	924
New Cars Required	0	335
CIP CARS PROGRAMMED BY FY 03		
Core System	--	150
Extensions	--	124
Total	**--**	**274**
Additional Cars Needed	--	61

Figure 3-7

PARKING SPACES FY 93 TO FY 03 - EXISTING AND PLANNED RAIL STATIONS

EXISTING STATIONS		ACTUAL SPACES AS OF JUNE 1993	NEW SPACES TO BE ADDED IN FY 94	NEW SPACES FY 95 TO FY 03	TOTAL SPACES PROJECTED BY FY 03
SAN FRANCISCO LINE:	DALY CITY	2,228	0	0	2,228
	GLEN PARK	55	0	0	55
	WEST OAKLAND (a)	424	0	0	424
	SUBTOTAL	**2,707**	**0**	**0**	**2,707**
FREMONT LINE:	FREMONT	2,494	0	0	2,494
	UNION CITY (b)	1,218	0	0	1,218
	SOUTH HAYWARD	1,307	0	0	1,307
	HAYWARD	1,061	650	0	1,711
	BAY FAIR	1,903	0	0	1,903
	SAN LEANDRO	1,295	0	0	1,295
	COLISEUM	1,059	0	0	1,059
	FRUITVALE (b)	1,103	0	0	1,103
	LAKE MERRITT	205	0	0	205
	SUBTOTAL	**11,645**	**650**	**0**	**12,295**
RICHMOND LINE:	RICHMOND	796	0	0	796
	EL CERRITO DEL NOR	2,516	0	0	2,516
	EL CERRITO PLAZA (c)	795	0	500	1,295
	NORTH BERKELEY	840	0	0	840
	ASHBY	626	0	0	626
	MACARTHUR	609	0	0	609
	SUBTOTAL	**6,182**	**0**	**500**	**6,682**
CONCORD LINE:	CONCORD	1,975	600	0	2,575
	PLEASANT HILL	3,245	0	0	3,245
	WALNUT CREEK	1,518	775	0	2,293
	LAFAYETTE	1,521	0	0	1,521
	ORINDA	1,380	0	0	1,380
	ROCKRIDGE (b)	889	0	0	889
	SUBTOTAL	**10,528**	**1,375**	**0**	**11,903**
EXISTING STATIONS TOTAL		**31,062**	**2,025**	**500**	**33,587**
EXTENSION STATIONS					
DUBLIN LINE:	CASTRO VALLEY	0	0	1,500	1,500
	WEST DUBLIN	0	0	1,400	1,400
	EAST DUBLIN	0	0	2,800	2,800
	SUBTOTAL	**0**	**0**	**5,700**	**5,700**
PITTSBURG LINE:	NORTH CONCORD	0	0	2,050	2,050
	WEST PITTSBURG	0	0	2,025	2,025
	SUBTOTAL	**0**	**0**	**4,075**	**4,075**
WARM SPRINGS LINE:	IRVINGTON	0	0	1,200	1,200
	WARM SPRINGS	0	0	2,300	2,300
	SUBTOTAL	**0**	**0**	**3,500**	**3,500**
WEST BAY LINE:	COLMA	0	0	2,250	2,250
	HICKEY	0	0	1,300	1,300
	TANFORAN	0	0	650	650
	SFO INTERIMODAL	0	0	2,325	2,325
	SUBTOTAL	**0**	**0**	**6,525**	**6,525**
EXTENSION STATIONS TOTAL		**0**	**0**	**19,800**	**19,800**
SYSTEM GRAND TOTAL		**31,062**	**2,025**	**20,300**	**53,387**

a. A future parking project is subject to reavaluation and identification of a funding source.

b. No plans are identified for Union City, Fruitvale, and Rockridge stations.

c. Contra Costa County Measure C provides funding for parking expansion in the City of El Cerrito. BART and the City are studying a possible future 500-space parking project at the El Cerrito Plaza Station.

Fleet Expansion And Car Storage Requirements

The current contract with Morrison-Knudsen will provide 80 new vehicles to be delivered between March 1995 and December 1995 (refer to *Evaluation of Key Capital Program Elements, Current Fleet and Programmed New Car Procurement* section in Chapter 2). This contract and the two options BART may exercise, for a total of 250 new vehicles are based on an analysis of system needs. This level of car procurement, through FY 01, is shown in Figure 3-8 (New Transit Car Requirements). Analysis for this year's SRTP shows that an additional 85 vehicles will be required (for a total of 335 new cars) to handle the extension to San Francisco Airport.

The status of the fleet, as service is expanded and service requirements change, is presented in Figure 3-9 (Status of Cars In Fleet). The current preventative maintenance standards for rolling stock are assumed to be constant in the ten year period. The 56 cars held as online ready spares will increase to 66 in December, 1995, when service to East Dublin is assumed to begin. A- and B-Cars in for rehabilitation number 36 throughout that program, which is to begin in June 1996 and end in September 1999. Online car requirements are a function of demand. The status of all remaining vehicles in the fleet is a function of the fleet size, which determines how many cars are held in inventory because they are not needed at any point in time as summarized in Figure 3-10 (Total BART Fleet vs. Excess/Deficit Cars). An additional factor is the number of online trains, which determines A-car utilization. Current plans call for the conversion of 100 A-cars to B-cars during the first part of the car rehabilitation program between June 1996 and September 1997. Since A-cars have restricted use as lead or trail vehicles, these conversions will provide added operational flexibility, as well as allow BART to make greater use of the existing fleet.

Figure 3-11 (Car Storage Capacity Versus Needs) compares BART's car storage capacity to storage needs throughout the ten year planning period. As shown, the additional car storage spaces provided by extension tail tracks--portrayed as steps on the solid line in the chart--is sufficient to accommodate the planned fleet expansion under an uninterrupted car buy.

Reduction Of Headways To Allow For Higher Capacity

Figure 3-4 (BART Service Expansion Headway Reduction and Extension) presents the planned schedule for implementing higher frequency train service, predicated on the capability of operating at headways shorter than today's. This phasing plan is based on the foregoing analysis of demand and implementation of key projects required for reducing headways. As shown, completion of the System Throughput Enhancement Program (STEP) in December 1994 will permit BART to operate at a minimum service headway of 135 seconds, down from an average of 180 seconds currently. This improvement translates to an increase in capacity of 30%, from a maximum of 20 trains per hour in one direction to 26. Currently, BART operates service at an average headway of 210 seconds. Analysis of ridership indicates, however, that peak demand forecast for December 1994 will require operation of service at a minimum scheduled headway of 189 seconds. BART plans to begin to operate at that service frequency (i.e., 19 trains per hour) initially upon completion of STEP. Further headway reductions to support extension service, and possible only with STEP in operation, will be made within a few months thereafter.

Figure 3-8

NEW TRANSIT CAR REQUIREMENTS

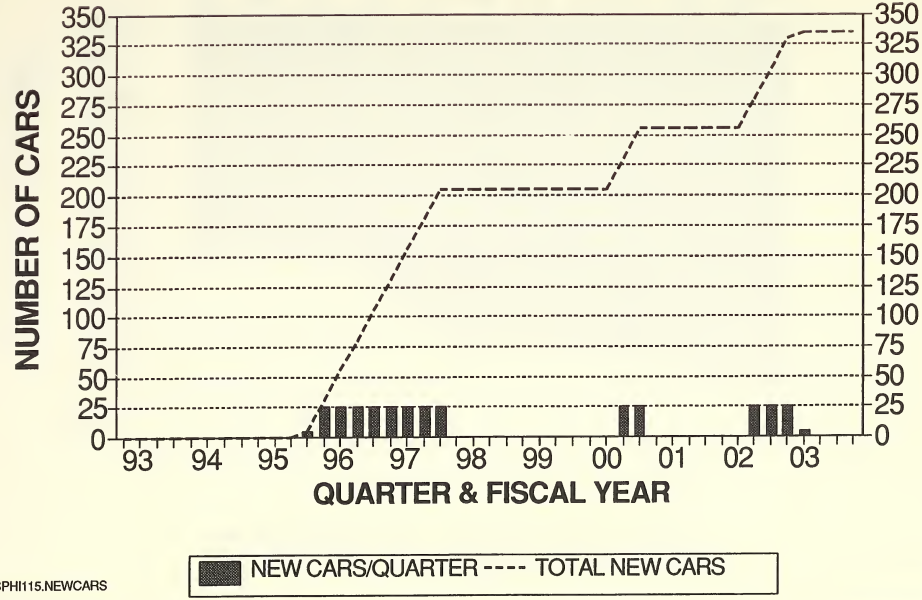

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Figure 3-9

STATUS OF CARS IN FLEET

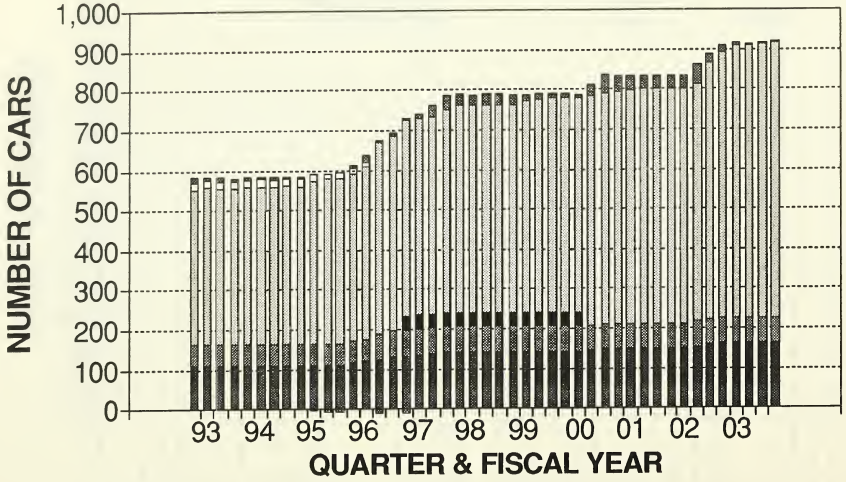

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Figure 3-10

TOTAL BART FLEET vs EXCESS/DEFICIT CARS

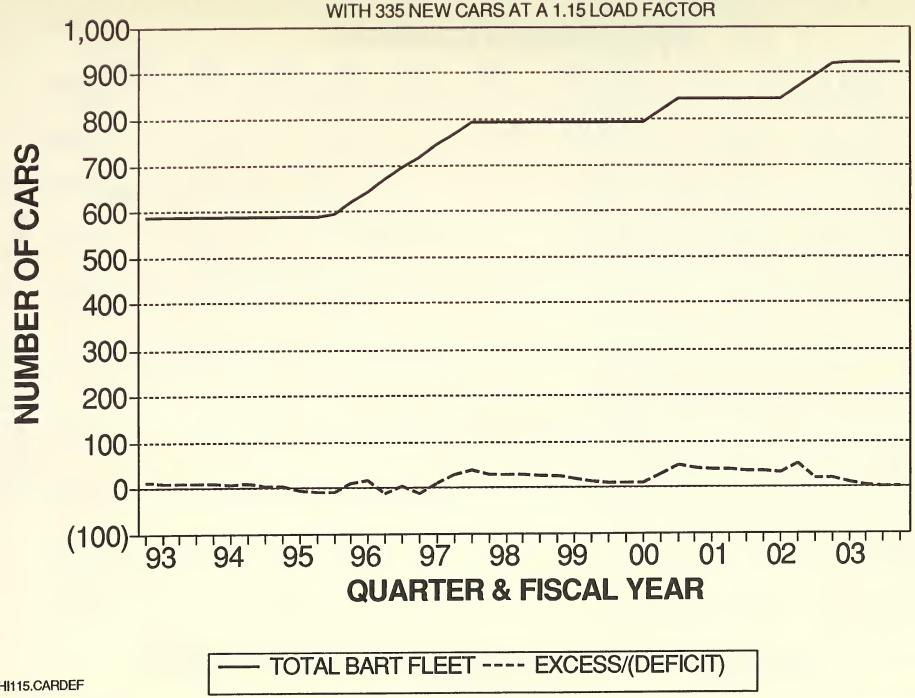

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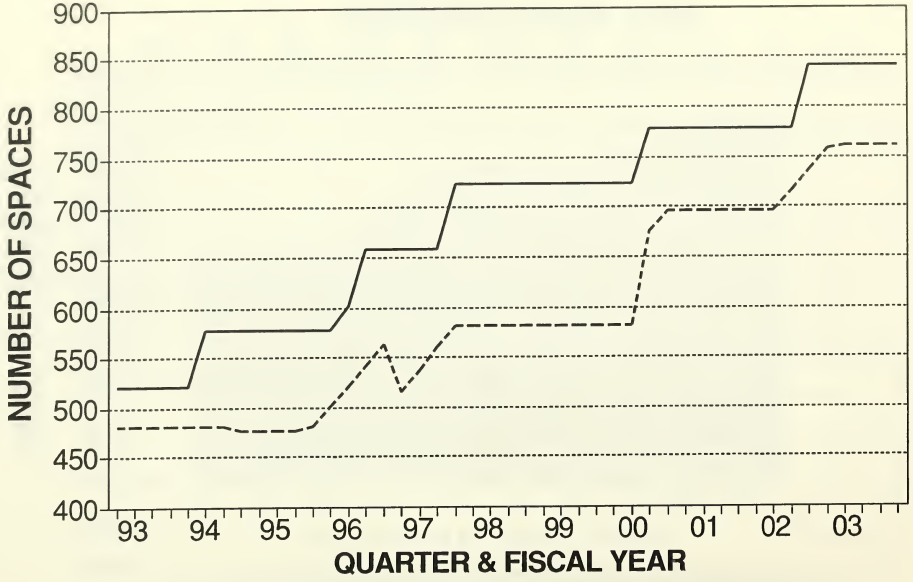
Figure 3-11

CAR STORAGE CAPACITY vs NEEDS



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The start of service on the extensions to North Concord, East Dublin, and Colma, in early FY96, is projected to require a headway reduction to 171 seconds (21 trains per hour). Ridership growth and new service starts to West Pittsburg, in late FY 97, and Warm Springs, in mid FY 00, are projected to require further headway reductions. The current ridership projection indicates need for a minimum transbay headway of 150 seconds (24 trains per hour) just prior to the start of service on the San Francisco Airport extension, which is assumed to start in the latter half of FY 02. With this last Phase I extension on line, BART will need to operate at the minimum allowable headway STEP is capable of supporting: 135 seconds (26 trains per hour).

To provide additional capacity to accommodate future ridership growth, BART is pursuing new technologies which promise much greater sophistication in train control. Application of one or more of the technologies under review could permit significant increases in train carrying capacity of the existing track configuration (i.e., Oakland Wye, Transbay Tube, etc.), by reducing allowable headways to 120 seconds or less. The District is currently using federal research and development funds to study recent defense industry advances in locational tracking of vehicles and equipment. In light of the opportunity to translate these developments into commercial peacetime hardware systems, the District has negotiated a joint BART/Private Sector proposal for federal defense conversion funding for project implementation. These sources are outside the traditional federal transit funding process.

Figure 3-12

BART EXTENSIONS STAGING POLICY [1]

PHASE	INSIDE CURRENT DISTRICT OR UNDER FUNDING AGREEMENTS
I.	North Concord - West Pittsburg [2] Irvington - Warm Springs [8] Castro Valley - Dublin [3,8] MUNI Metro Extension Project [4] Colma - San Francisco Airport [5]
II.	Pittsburg - West Antioch - East Antioch Pleasanton - West Livermore - East Livermore [3] San Francisco [6] San Pablo - Hilltop Oakland Airport Connector [7]
III.	San Francisco [6] Pinole - Hercules/Rodeo - Crockett San Ramon Corridor

NOTES:

1. The several segments shown under each Roman numeral are understood to be implemented concurrently, to the extent that funding is avail BART will be the operator for any new heavy or light rail transit starts or extensions within the three BART counties.

2. To be extended east beyond West Pittsburg as funding permits, per SB 1715 of 1988.

3. Third station may be constructed only with funds additional to those identified in MTC Resolution 1876 (as revised in 1989).

4. The San Francisco Project is identified through coordination with the City and County of San Francisco as the MUNI Metro Extension t CALTRAIN Depot South of Market.

5. Agreement of Februa 1990 with SamTrans to proceed with SFO extension, subject to BART project approval.

6. Specific San Francisco Project to be identified through coordination with the City and County of San Francisco. Section 29034.5 o California Public Utilities Code lists a. ..nsion of District services and facilities to the northwest section of the City and County of Francisco as a District service commitment.

7. A people-mover, or some other mode of travel, to the Oakland Airport to be established before or at the same time as an extension of B to the San Francisco Airport.

8. Funding from Proposition 116 shall not be allocated to the Warm Springs Extension (WSX) until funding for the Dublin-Pleasanton Exte has been guaranteed.

PHASE	OUTSIDE CURRENT DISTRICT
I.	Milpitas
II.	Millbrae - Menlo Park Milpitas - San Jose
III.	Menlo Park - San Jose

9. Subject to a satisfactory cost-sharing arrangement with San Mateo and Santa Clara Counties and project approval by BART. Pursua Section 29034.5 of the California Public Utilities Code, only non-District funds may be spent by the District for the purpose of exte services and facilities outside of District's January 1, 1971 boundaries until the District meets specified service commitments within the boundaries.

Board revised and adopted: October 25, 1990

Looking Above And Beyond The Short Range Transit Plan

As discussed elsewhere in this plan, the main near term emphases of the BART organization will be:

- continued excellence in service to our passengers;
- successful construction and operation of the Phase I extensions; and
- investment in rehabilitation of aging components of the BART system.

While BART will be primarily mobilized around these goals, it is also committed to developing a vision of BART's future beyond these near term tasks. Such a vision is expected by the citizens of the Bay Area, who are eager for BART-Around-The-Bay, for freeway congestion relief, for improved air quality, and for enhanced mobility. A future vision is essential in order to give voice to these dreams, and to keep them on course.

Although the BART organization has not yet conducted a systematic strategic planning effort, the District has been alert to emerging opportunities. BART's vision of the future could include two fundamental types of new initiatives:

- CIP steps which could be taken in the near term but which are not included in the SRTP/CIP financial plan for lack of funding, and

- initiatives beyond the 10-year time horizon of the SRTP.

The purpose in developing both types of potential initiatives is to stimulate a discussion of ways in which BART can augment its role as the region's primary line-haul transportation provider. BART will use its vision to show the public future services it can provide, and the region will choose which services and investments to make. Initially, BART's future vision will be structured conceptually, rather than as part of BART's detailed master plan. As new initiatives secure public support and funding, they can eventually be incorporated into official District plans and policy statements, Mission Statement, and SRTP and CIP financial plans.

Last year, BART adopted policy regarding development and operation of the regional transit system (see Figure 3-13, Development and Operation of the Regional Transit System). The District committed to continuing to function as the regional rail operator, to continue planning for multiple transit modes, and to expand its operations to include a fully integrated coordinated multi-modal transit system.

Figure 3-13

Development and Operation of the Regional Transit System

BEFORE THE BOARD OF DIRECTORS OF THE
SAN FRANCISCO BAY AREA RAPID TRANSIT DISTRICT

In the matter of Developing
Policy Regarding Development and
Operation of the Regional Transit System / Resolution No. 4469

WHEREAS, the San Francisco Bay Area Rapid Transit District currently operates regional rail and a connecting express bus service, and has planned for light rail, people mover and other transit technologies;

WHEREAS, multi-modal regional rail development and operations are best coordinated through the administration of one entity;

WHEREAS, the BART Mission Statement establishes the policy of the Board of Directors regarding BART's role as the operator of the region's rapid rail system in relation to other transit agencies and modes of transportation in the San Francisco Bay Area, and specifically calls for improving all aspects of coordination of BART service with the region's freeways, bus, and rail systems to maximize the availability and attractiveness of an integrated regional transit network;

WHEREAS, it is the desire of the Board of Directors of the San Francisco Bay Area Rapid Transit District to affirm its goals and policy regarding operation and development of the regional transit system;

NOW, THEREFORE BE IT RESOLVED, that it is the District's policy to continue functioning as the regional rail operator, to continue planning for multiple transit modes, and to expand its operations to include a fully integrated coordinated multi-modal transit system.

* * *

Adopted October 15, 1992

Future Opportunities And Challenges

Near term

The SRTP/CIP base financial plans are predicated on a set of underlying assumptions that BART's operating environment will remain largely the same. But, in fact, fundamental environmental changes are possible within the SRTP time frame. For example, before the turn of the century, the Bay Area might see measures to ration available freeway capacity, such as congestion pricing, which could dramatically increase demand and provide funding for transit services. Transportation demand management measures mandated by the Air Quality Management District could do the same. Economic conditions might induce changes in the standard of living of Bay Area residents, making public transit a more attractive option. Commuter and high speed rail could provide attractive intermodal opportunities. Advances in technology could provide BART with opportunities for innovative uses of its right of way. BART must be attentive to opportunities for improvement, and must be ready to respond to challenges as they arise.

Of course, it is difficult to predict what the future will bring, and some future scenarios are less optimistic. Possible future events, such as the declining service quality which would accompany failure to find the resources to complete the rehabilitation projects, could cut into BART ridership. New freeway technologies or a new wave of freeway building could increase automobile throughput in the BART corridors, at public transit's expense. An accelerated shift towards suburb-to-suburb commuting could impair the usefulness of fixed rail transit. Dramatic increases in tele-commuting and tele-shopping could decrease the overall demand for travel in the region.

These kinds of uncertainties about the future suggest that future visions should be as flexible and adaptable as possible. Markets must be fully tested before large new fixed facility investments are made. Also, transit agencies must be attentive to economic and social changes, and continually invent services to satisfy evolving public needs. Hidden opportunities may emerge in challenging situations. As tele-commuting grows, for example, BART could provide tele-commute business facilities, possibly integrated with child care services, near suburban BART stations. Capitalizing on emerging opportunities may require BART to begin to expand the definition of public transit to include related services not yet considered part of its mission.

Longer term

A vision above and beyond the SRTP is necessary for BART to actively participate in long range planning and programming efforts mounted by the Metropolitan Transportation Commission. MTC is currently embarking on a 20-year, Regional Transportation Plan which will help guide Bay Area transit investment priorities in the years to come. The plan will contain a series of "Track 2" projects, above and beyond the scope of the financially constrained "Track 1" plan. BART's vision will help inform Track 2 choices. Funding for the "Track 2" investments could come from bridge tolls, sales taxes, a regional gas tax, or future federal CMAQ monies. In combination, these funding sources are projected to bring approximately $15 billion in transit investment to the region.

What Service Improvements Can BART Offer The Bay Area

In general, the most cost effective, near term service enhancements BART can offer the region are:

1. **Greater Capacity**
   It has been estimated that BART could add sufficient capacity to double current ridership levels with only a 10-30% increase over the region's current investment in BART's capital plant.[1] Enhancements to BART capacity are efficient in that they take advantage of economies of scale. Capacity enhancements would need to be made in parking, bus access, traction power, train control, yard space, fleet size, and station circulation (see Figure 3-14, Greater Capacity Scenario). The central attraction of this strategy over many other transit investment options for the region is that the current BART system is a proven quantity. Peak hour trains are standing room only, parking facilities fill as early as 6:30 AM, and on-time performance exceeds 95%. Many potential customers who would ride BART if there were capacity available are turned away from BART each day. In the coming year, the District plans to take a detailed look at the latent market for BART travel.

2. **Short Connections To Dense Nodes Of Activity and Interim Service**
   A key challenge in expanding transit service is to bring in new riders at the least possible incremental cost to the region. One strategy for achieving this goal is to emphasize operation of short connections to dense activity centers. The most promising activity centers would be those which are close to the BART line and which draw trips from throughout the region. Possible regional draws include large shopping centers, stadiums, recreation areas, schools, and high density employment and residential centers. The District plans to conduct an inventory of promising locations for further review.

   Connections to dense nodes of activity could be in the form of frequent shuttle service, suspended light rail, people movers, or even BART spurs, where cost effective. Whatever technology is applied, it is important that the intermodal connections be as convenient as possible.

   Commuter rail, as successfully demonstrated during the recent Beat-The-Backup FASTRAK service, may serve as the nearest term option for providing interim service in BART corridors. BART has identified a 200-mile network of commuter rail which could be brought on line in just 18 months, for an initial investment of only $100 million. As a regional network of high occupancy vehicle (HOV) lanes begins to take shape, HOV express buses might provide a cost effective means of providing interim service as well. The BART organization has the expertise and experience to successfully introduce these types of interim services, while providing organizational continuity within each corridor.

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[1] the range of figures reflects varying cost escalation rates, from CPI on the low end to a rate more reflective of opportunity cost on the high end.

FIGURE 3-14
"GREATER CAPACITY" SCENARIO
ESTIMATED CAPITAL COSTS (FY94 - FY03, $ IN MILLIONS)

ITEM	1.45 LOAD FACTOR	1.15 LOAD FACTOR
Rolling Stock	$592	$744
Traction Power & Reliability Upgrades	$200	$200
Station Costs	$100	$100
Access Costs[1]		
• Parking Spaces	$500	$380
• Feeder Services	$300	$450
Shops and Yards	$120	$120
TOTAL:	$1,812	$1,994

1. The range in access costs reflects different rates of auto and non-auto access, i.e. if non-auto access is low, then more parking is needed and visa-versa.

In the long term, as strong markets materialize in corridors with interim transit service, BART service could be introduced to provide greater capacity, speed, and reliability. Ultimately, the region may want to standardize around the BART technology to keep commutes as convenient and seamless as possible. In order to make a real impact on the congestion and air quality problems in the longer term, the region will need to look towards high capacity, high level of service transit operations like BART. Ultimately, BART extensions can reach out beyond the three District counties to all parts of the Bay Area. It can ring the San Francisco Bay and provide convenient connections to the region's airports and high speed rail stations, to bring about improved cohesiveness and economic integration within the region.

3. **Innovative Programs To Better Serve Suburban Trip Ends**
   The current BART system is primarily configured to serve trips ends in the Berkeley, Oakland, and San Francisco central business districts. BART trip origins are widely dispersed. Patrons living miles away from BART stations are comfortable driving or taking the bus to BART. In contrast, BART does not currently serve many patrons whose workplaces are more than a short walk from a BART station. Meanwhile, trends in regional travel show an increasing requirement for transportation facilities to serve suburban, highly dispersed trip ends. There are a number of innovative options for making BART relevant to the suburban trip-end market. Frequent shuttles sponsored by employers, retail business districts, or other institutions can play a role. Also, bicycle or electric car rentals can provide convenient, low cost, door to door service from the BART station to an individual's destination. In order to succeed, suburban trip links must be convenient and flexible, and the intermodal connection with BART rail must be as seamless as possible.

4. **Bringing About Complementary Land Uses In The BART Station Areas**
   BART's potential for future ridership growth is related to the intensity of commercial and residential land use around its stations. Intensive land uses generate more trips for BART to serve. The high volume of BART ridership to the San Francisco central business district stations, for example, illustrates this point. The concentrated employment around these stations draws BART trips from throughout the region. Although BART currently has programs to exercise joint development opportunities on BART owned land, it must broaden its focus to also encourage more intensive land use designations in larger catchment areas around stations. Of course, it is important to respect the delicate balance between local control and regional needs. Nevertheless, BART should be prepared to assist local communities which are ready for change, and work in concert with the region to promote in-fill development over outward expansion of regional growth. It is also desirable, particularly for the new extensions, that the land use designations around station areas support regional transportation objectives. The region's choice of future BART station locations and alignments might even be tied to formal local commitments to designate appropriate land uses around prospective sites.

5. **Changing The Way We Do Business**

There is another side to the BART vision which concerns itself not so much with where BART goes or what is constructed around BART, but rather with how BART approaches its business. In the future, the organization must redouble its focus on productivity and customer service, as well as fiduciary responsibility to the region's taxpayers. BART must continue to seek to operate more like a business and less like a bureaucracy. BART will serve the public best if it can encourage in its employees creativity, innovation, and ever high standards of performance and responsibility. Whether it be a station agent's assistance to a customer, elevator reliability, train cleanliness, or police protection, BART customers should see the same attentiveness to their needs they see when they visit a shopping mall or theme park. BART intends to continue improving its management techniques, training, and employee incentives to respond to these service challenges in the most cost effective manners possible.

Resources To Usher In The Future

An expansive vision of public transit's future in the region comes with a price tag. This strategic sketch discusses the future in conceptual terms, hence there is little specific cost information presented. Nevertheless, the vision is expansive and, clearly new sources of funding will be needed to bring it about. Funding options include the following:

- **Regional Transportation Plan Track 2 funds**

  The draft 1994 Regional Transportation Plan (RTP) includes a financially constrained set of "Track 1" projects, designed to be fundable within revenue projections for the next 20 years. As the RTP process progresses, a second, "Track 2," set of unfunded projects will be identified as well. These projects would serve as the basis for a regional advocacy effort to secure additional funding. Possible funding sources include rollover of the 1/2 cent county sales tax measures, a 10 cent per gallon regional gas tax, post-1997 Federal Congestion Mitigation and Air Quality funds, bridge toll increases and, possibly, congestion pricing. In total, these sources are expected to amount to more than $15 billion dollars in new revenues over the RTP 20-year time horizon. It should be noted, however, that some of the "Track 2" resources may be needed merely to maintain and sustain the existing network of public transit in the Bay Area.

- **Buy-Ins**

  County buy-ins to the BART system could raise revenues to expand and improve BART services.

- **Regional Efficiencies**

  Perhaps there are ways to streamline transit services to provide more "bang for the buck." With the movement to reinvent government, citizens will demand no less. The starting point is to ensure that the public is not asked to subsidize unnecessary

or redundant services. This means that transit operators should not operate competing, excess-capacity service in the same corridor. It also means that services must be scrutinized carefully, where there is little or no demand for them. Public subsidy of transit makes sense, as transit brings a myriad of economic and quality-of-life benefits to the region. Transit brings good jobs, reduced congestion, improved air quality, a stronger business climate, and better mobility for everyone. The public, however, does not want to see their tax dollars go into running empty buses or trains. People want their hard earned money to bring about tangible results.

One way to ensure efficiency is to structure public subsidy transit operators on a performance basis. Whatever efficiencies are produced by performance-based subsidies could be used to help achieve the region's future vision. One idea, for example, would be to subsidize transit operations on a farebox matching basis: for each dollar of fare revenue collected, a matching subsidy would be provided. This approach would provide a market incentive for operators to focus service to the most productive areas, and to find the right types and quality of service to meet transit demand. Farebox matching subsidies would give additional clout to the customer, because transit agencies would have more at stake if customers become dissatisfied and cease using the service. Performance based subsidies could also be used to achieve regional objectives to improve interoperator coordination. Operators could receive higher matching subsidies for fares collected from interoperator travelers. Also, some regional subsidy should be set aside to provide a higher level of support for introductory services which need time to build markets.

- **Flexible Funding**

  Under new federal law, metropolitan areas have greater ability to make choices about the use of federal funds. This means that the Bay Area will have to make difficult tradeoffs between mass transit and freeways. Depending on public sentiment, this flexibility could free up more funds for transit.

CHAPTER 4

FISCAL YEAR FORECASTS AND FINANCIAL PLAN

BART's SRTP financial plan focuses on the District's operating budget for fiscal years 1994 through 2003 (for the period July 1993 through June 2003). All sources of revenue and expense are considered, as well as sources of financial assistance. The starting point for the financial projections is BART's FY 94 operating budget, the focus of the next section. Subsequent discussion identifies the assumptions upon which the out-year forecasts are based.

FISCAL YEAR 94 OPERATING BUDGET

BART's operating budget for FY 94 is summarized in Figure 4-1 (FY 94 BART Operating Budget). This financial statement recognizes four key budget influencing factors. *First*, ridership and related revenue from passenger fares are expected to be only marginally above levels achieved in FY 93, reflecting flattened ridership growth within the current recessionary period. *Second*, labor costs match rising expense as called for under the July 1991 contracts with the two largest unions representing BART labor. *Third*, a slight easing of the economic recession is expected to result in somewhat better sales tax receipts relative to FY 93.

As part of the process for developing the FY 94 operating budget, a $7.4 million unfunded gap was closed by cost containment measures and the identification of additional revenues. The labor and non-labor savings are discussed below. Despite external pressures, BART's adopted operating budget for FY 94 has no unfunded deficit, while providing for essentially the same level of service as FY 93, and at 1986 fares.

FY 94 Operating Budget and Balancing Solutions

Measures taken to balance BART's FY 94 preliminary operating budget include the implementation of cost containment strategies relating to project and program options and tradeoffs. On the expense side, a total of $3.9 million were eliminated from the District's preliminary FY 94 operating budget.

Reduced expense for staffing and administrative costs resulted in a $1.5 million savings. Further, reductions in consultant services (identified in the FY 94 preliminary operating budget) cut the adopted budget by another $0.8 million. An additional $1.0 million reduction was realized by taking advantage of electric power rate adjustments available to the District. BART also has an option available with respect to the Laidlaw express bus service contract, which is up for renewal in FY 94. Exercising this option is expected to result in a $0.2 million expense reduction.

Finally, as part of this cost-containment effort, some early morning Saturday train service was eliminated resulting in a $0.4 million savings. Beginning on Saturday, September 25, 1993 and each Saturday thereafter, four-route train service between the hours of 6 and 9 a.m. has been replaced with two-route *X* service. The net effect of this service change will be to require some passengers to transfer in downtown Oakland for travel which was previously served by direct routes. The system opening time on Saturday, however, remains virtually unchanged (some

FIGURE 4-1
FY 94 BART OPERATING BUDGET

REVENUES ($)	FY 94 ADOPTED BUDGET
GROSS RAIL PASSENGER REVENUE	$115,992,100
DISCOUNTS	(14,101,600)
NET RAIL PASSENGER REVENUE	**101,890,500**
PARKING CHARGES	0
NET EXPRESS BUS PASSENGER REVENUE	1,184,500
ADA SERVICE PASSENGER REVENUE	0
TOTAL NET PASSENGER REVENUE	**103,075,000**
INTEREST REVENUE	6,790,400
OTHER OPERATING REVENUE	3,605,700
SUBTOTAL NON-FARE REVENUE	10,396,100
TOTAL OPERATING REVENUES	**113,471,100**
EXPENSES ($)	
NET LABOR	160,869,300
EXPRESS BUS SERVICE	6,830,800
SHUTTLE SERVICE	185,000
PURCHASED TRANSPORTATION	1,529,200
ADA SERVICE	0
POWER	21,042,600
OTHER NON-LABOR	29,880,800
PERS	0
TOTAL OPERATING EXPENSES	**220,337,700**
OPERATING DEFICIT ($)	**(106,866,600)**
FINANCIAL ASSISTANCE ($)	
SALES TAX (BART 75%)	110,776,000
PROPERTY TAX	12,055,100
STA STATE ASSISTANCE	3,000,000
TDA STATE ASSISTANCE	561,900
SAN MATEO COUNTY	0
ADA ASSISTANCE	0
NEW FUNDING SOURCES	0
DEBT SERVICE ALLOCATIONS	(19,526,400)
OTHER CAPITAL ALLOCATIONS	0
NET FINANCIAL ASSISTANCE	**106,866,600**
FINANCIAL RESULT ($)	**0**
FINANCIAL INDICATORS	
RAIL FAREBOX RATIO	48.1%
EXPRESS BUS FAREBOX RATIO	17.3%
ADA SERVICE FAREBOX RATIO	NA
SYSTEM OPERATING RATIO	51.5%
RAIL COST/PASSENGER MILE (CENTS)	22.35
RAIL PASSENGER MILES	947,710,700
TOTAL RAIL PASSENGERS	75,141,152
AVERAGE WEEKDAY RAIL TRIPS	257,724
RAIL TRIPS PER EQUIVALENT OPERATING EMPLOYEE	30,532
RAIL PASSENGER MILES PER EQUIVALENT OPERATING EMPLOYEE	385,091
EQUIVALENT OPERATING EMPLOYEES	2,461

station opening times have been modified slightly and correspond to the revised schedule for the first train serving each station).

On the income side, an additional $0.5 million in passenger revenue have been identified over and above the level originally forecast. This gain, however, continues to reflect conservative ridership growth. An additional $3.0 million is budgeted to come from State Transportation Assistance (STA), which was not included in the preliminary FY 94 operating budget.

BART's $220.3 million operating budget supports achievement of the District's performance and program objectives. BART's FY 94 operating budget supports achievement of the objectives, and is based on the following service parameters and assumptions.

FY 94 Ridership and Revenues

BART's FY 94 operating budget assumes continuation of the recession with only slight employment growth in the Bay Area. Annual ridership is assumed to grow 1.6% over FY 93's actual total to 75.1 million trips. BART's FY 94 budget includes the impact of the August 1993 increase in BART/MUNI Fast Pass prices from $32 to $35 and a resulting lower BART subsidy.

Interest earnings are budgeted at $6.8 million, $0.7 million above FY 93's actual. Other operating revenue (i.e., from non-fare sources) has been budgeted 2.8% below the FY 93 actual, from $3.7 million to $3.6 million.

FY 94 Staffing

The FY 94 operating budget supports BART's emphasis on improving skills and overall employee development. A philosophy of employee empowerment will continue to be stressed and backed by programs which reward excellent performance. As a cost containment measure, close attention will be given to use of overtime and the rate of employee absenteeism. BART's operating staff headcount is budgeted at 2,461 positions, 10 fewer than the budgets for the previous two fiscal years.

FY 94 Operating Expense

Total operating expense for FY 94 is budgeted at $220.3 million, or 4.7% above the actual for FY 93. Net operating labor expense is budgeted to rise 7.2% over FY 93's actual. This is the primarily the result of the wage increase called for under the current contract agreements, escalating fringe expense, and positions assumed to be filled in FY 94 which were vacant the prior year (and not filled as the result of a hiring freeze).

Express bus and shuttle bus service expense is budgeted at $7.0 million, or 6.8% over FY 93 actual. MUNI transfer agreement payment is budgeted at $1.5 million, or 1.1% above FY 93 actual. [The formula which is used in determining the MUNI payment includes a factor for sales tax revenue growth. This low-growth line item offset higher increases for other factors in the formula.] Electric power is budgeted at $21.0 million, or 5.0% above FY 93's actual. Cost containment efforts for FY 94 are clearly evident by a $29.9 million budget for other non-labor items. This is 7.3% under FY 93's actual of $32.2 million.

FY 94 Financial Assistance

Total financial assistance is budgeted at $126.4 million. This is 5.3% above FY 93's actual of $112.0 million. Sales tax assistance, which constitutes roughly 90% of the District's total financial assistance, is budgeted at $110.8 million in FY 94, 2.7% higher than FY 93's actual of $107.9 million. As a direct result of result of the recession, BART sales tax assistance in FY 94 is expected to be just 1.7% above the $109.0 million achieved three years earlier, in FY 91. Property tax revenue is budgeted to increase 4.0%, from an actual of $11.6 million in FY 93 to $12.1 million in FY 94. Remaining financial assistance is to be derived from STA and Transporation Development Act (TDA) sources, at $3.0 million and $0.6 million, respectively.

Net financial assistance (i.e., total assistance less capital allocations and debt service) is budgeted to be 8.7% greater in FY 94 than the actual achieved in FY 93. This relatively large gain, in light of low sales tax growth, is primarily the result of no allocations from operating sources to capital in FY 94. In FY 93, $3.3 million were allocated from operating sources toward the purchase and installation of two wheel truing machines. These programs are now funded entirely through the District's capital budget (refer to the CIP). Debt service payments are budgeted to increase 6.6% over the FY 93 actual.

FY 94 Key Financial Indicators

BART's FY 94 operating budget is balanced at fares which have not been increased since January 1986. The cost containment measures and focus of BART's overall program are expected to offset but not fully correct the impact of expense growth outpacing available revenue sources. The net effect of this is expected to result in somewhat less favorable financial performance relative to the prior fiscal year.

The FY 94 rail farebox ratio is budgeted to be 48.1%, down from an actual of 49.9% last fiscal year. Similarly, the system operating ratio is budgeted at 51.5% versus 53.3% actual last year. This level of financial performance remains above the District's standard of a 50% system operating ratio.

In line with expense slightly outpacing revenue, BART's rail cost per passenger mile is budgeted to increase 3.2% from an actual of 21.7¢ in FY 93 to 22.4¢ in the current year's budget.

FINANCIAL FORECASTS FOR FY 95 THROUGH FY 03
A FRESH APPROACH TO BART'S FUTURE

The operating plans, budgets and forecasts presented in the foregoing have assumed a business-as-usual approach to operations, financing and support from patrons and the community at large. As depicted in Figure 4-2, that assumption results in very significant operating deficits, beginning in FY 95 at $16.7 million and increasing to $150.0 million in FY 03. Obviously, such operating deficits are unacceptable.

In addition, the Intermodal Surface Transportation Efficiency Act of 1991 mandates that the Regional Transportation Plan (RTP) used to guide the Bay Area's future transportation system be fiscally constrained. As a result of this new directive, MTC has specifically required BART to demonstrate in its FY 94 SRTP that it has the ability to fund its proposed operating plan and the associated CIP.

In response to these challenges, District Directors have engaged in an ongoing process to develop a new approach to secure BART's future as the preeminent transportation provider in the San Francisco Bay area. The Directors have been exploring opportunities for cost containment, efficiency improvement, alternative sources of funding and creative approaches to financing, to insure that BART can continue to provide the quality service its patrons have come to expect. To do so, the Directors must consider not only the need for operating monies, but for funds to support necessary capital improvements as well. Particularly with regard to capital requirements, BART's Board will be seeking to forge a new relationship with MTC, the organization which distributes State and Federal funds to regional transit operators. BART will be seeking the establishment of a forthright, rational process for programming regional funding, which will guarantee the longer term commitments necessary to successfully conduct large scale capital investment programs in an environment of fiscal constraints. Fundamental to this process will be a mechanism for insuring that regional funds are not used inefficiently on redundant services.

During a series of seven meetings, conducted over a period of almost three months, the Administration Committee of BART's board of Directors has examined a wide range of possible revenue enhancement and cost reduction measures. In addition to those measures adopted for planning purposes and listed in Figure 4-3, many others were considered and rejected. Among the measures excluded from this plan were the following:

- Parking charges
- Increase in load factors
- Reduction of Express Bus Service
- Headway increases
- Reduction of hours of service
- Early closing of certain stations

Figure 4-2

BART PRELIMINARY OPERATING BUDGET, FY 95 - FY 03
Millions of Dollars

	FY 95	FY 96	FY 97	FY 98	FY 99	FY 00	FY 01	FY 02	FY 03
REVENUE	113.4	122.6	131.1	136.4	141.7	149.1	152.7	168.5	182.9
EXPENSE	239.6	281.3	319.2	344.9	367.8	394.1	415.1	451.7	487.0
FINANCIAL ASSISTANCE *	109.5	114.1	118.9	124.2	129.7	135.5	141.4	147.6	154.1
FINANCIAL RESULT	(16.7)	(44.6)	(69.2)	(84.3)	(96.4)	(109.5)	(121.0)	(135.6)	(150.0)

* NOTE: Financial Assistance is shown net of debt service. This statement assumes no capital allocations from operating sources.

In general, the Directors rejected measures which would, in any manner, degrade service provided to patrons, and instead sought opportunities to contain costs, increase efficiency, enhance service and aggressively develop alternative sources of funding.

Finally, after all other alternatives have been fully exploited, it may be necessary for BART to raise its fares to, at a minimum, correspond with those of other transit operators in the region. The District, which has not increased fares since 1986, would do so only reluctantly, for the specific purpose of financing necessary capital investments in new and expanded facilities, and in rehabilitation of existing plant and equipment. In the final analysis, however, circumstances may be such that it will be necessary to use some of the revenue from this source to support operations. In any case, no fare increases will be undertaken until commitment has been obtained from MTC for a more concrete, regional transit funding plan. Even then, the timing, magnitude and other details of any proposed fare increase would be subject to extensive review by BART's staff and Board, and would be the subject of well advertised public hearings. Fare increase in revenues are depicted in Figure 4-3 (Board Selected Deficit Reduction Options) for planning purposes only.

A program of specific proposals for eliminated the forecast operating deficits and providing a bondable revenue stream to support capital investment is presented in Figure 4-3. This presentation should not be regarded as a "final solution", but as a "snapshot" of the most recent stage in an ongoing development process. The program depicted is the result of an extensive series of meetings held over a period of several months, and will continue to receive a similar level of attention in the future, until an optimal program is identified. Summaries of each proposal follow, identified by the corresponding line number from Figure 4-3.

Line 1, Baseline Deficit: As developed in the preceding sections, a business-as-usual approach to operations is expected to result in the annual deficits indicated. The baseline deficit reflects resumption of PERS premium payment, starting at $12.76 million in FY 98.

EXTRAORDINARY FISCAL IMPACTS

Line 2, ADA Paratransit Requirement (Subsidy): Under the American Disabilities Act, the Federal Government has mandated provision of paratransit services, without making provisions for funding these services. BART and virtually all other transit operators are faced with extraordinary expenses for this program. BART will join with other operators in aggressively seeking new supplemental funding, represented on this line, to defray the net cost (after fares) of the mandated program.

Line 3, East Bay Extension Requirement (Subsidy): The operating costs of BART's 71-mile, core system is funded primarily from fares and sales tax revenues, in approximately equal proportions. When the extensions open, only the additional fares collected will support the additional operating costs. This line represents the assumption that an additional, temporary

source of funding, of an equivalent proportion, will be provided by the region to subsidize the extension operating costs net of fares, until a permanent funding source can be arranged.

Line 4, SamTrans Net Cost Reimbursement (Subsidy): Under the terms of the agreement between BART and SamTrans, San Mateo County will reimburse BART for the net costs of providing service within that county, to commence with the start of service to Colma Station. This line represents an estimate of the reimbursements to be received, which are not reflected in Line 1.

••• SUBTOTAL, Subsidies ••• Subtotal of Lines 2 through 4

BART ACTIONS

Line 5, Two-Route Early Saturday Service (Cost Reduction): A proposal to substitute two route, "X" service, from 6 to 9 a.m. on Saturday mornings, in place of the four-route service currently provided during that time period.

Line 6, 3%-4% Annual Labor Inflation vs 5% Base (Cost Reduction): The deficits depicted in Line 1 are based upon an assumed annual growth in total labor expenses of 5%. This alternative assumption represents a policy of holding labor cost growth to 3% in FY 95 through FY 97 and to 4% thereafter.

Line 7, 2 1/2% Cost Containment (Cost Reduction): This line represents the result of achieving a 2 1/2% reduction in operating costs in FY 95, and carrying that cost containment improvement into the future.

Line 8, Muni FastPass Revenue Sharing Change (Additional Revenue): Represents an adjustment to the BART/MUNI FastPass revenue sharing agreement to eliminate the need for the annual BART to MUNI transfer payment included in previous forecasts of operating costs. This change might involve a change to a two-tier FastPass, which could require patrons riding both systems to purchase a *Premium FastPass*.

Line 9, Special Fare Discounts (Additional Revenue): This line represents the projected revenue increases to be expected if BART altered the discounts offered elderly and disabled riders, from the present level of 90% throughout the day, to a 75% discount during off peak periods and no discount during peak periods.

••• SUBTOTAL, Cost Reduction/Additional Revenue ••• Subtotal of Lines 5 through 10

Line 10, New Financial Result, Operating Deficit: Represents the net result of applying the measures described above to the Line 1 deficit. This line reflects the resumption of PERS premium payment, starting at $12.76 million in FY 98.

Line 11, New Revenue for Capital: Indicates the revenue required to support the capital investment program.

Line 12, Total New Revenue Required: Net revenue requirement for capital and operating purposes. Sum of Lines 10 and 11.

Line 13, Permanent Funding Source: Represents development of a new funding source. The amount shown is less than the full 25% portion of the regional 1/2 cent sales tax now shared with other transit operators. Alternatively, these revenues could come from sources such as gasoline taxes, bridge tolls, Federal, State or regional air quality funds, or rolling over the existing G.G Bonds.

Line 14, Total Required Fare Increase: Fare increase necessary to balance the annual operating and capital budgets after application of the contribution from the Permanent Funding Source indicated above.

Line 15, Percent Fare Increase: For the purpose of these projections, it is assumed that fare increases will be made, effective on July 1 of each year, beginning in FY 95, and that they will be across the board for all fare instruments: blue tickets, BART Plus, BART/MUNI FastPass, etc. For this proposal, the percentage increases were selected to raise BART's base fare from the present level of 80 cents to 90 cents in FY 95, to $1.00 in FY 96, and to $1.10 in FY 97, at which point, BART's base fare would equal the comparable base fares currently charged by other regional transit agencies. However, by FY 97, other agencies may well have further increased their fares. Additional fare increases of 5% per year are necessary in FY 98 and FY 99. No additional increases are assumed for FY 00 through FY 03.

Line 16, Estimated Yield: This line represents the anticipated annual increases in revenue resulting from the assumed series of fare increases.

Line 17, Remaining Differential - Annual: This line is the result of applying the Estimated (fare increase revenue) Yield (shown on Line 16) to the Total Required Fare Increase (shown on Line 14.

Line 18, Remaining Differential - Cumulative: Simply the cumulative year-to-year total of Line 17. Any positive differential could be accumulated as a capital reserve for the bond program.

BOARD SELECTED DEFICIT REDUCTION OPTIONS – REDUCED EXPENSE AND INCREASED FINANCIAL ASSISTANCE

(Thousands of Dollars)

	FY 95			FY 96			FY 97			FY 98			FY 99			FY 00			FY 01			FY 02			FY 03		
	CORE	EXTEN	TOTAL	CORE	EXTEN	TOTAL	CORE	EXTEN	TOTAL	CORE	EXTEN	TOTAL	CORE	EXTEN	TOTAL	CORE	EXTEN	TOTAL	CORE	EXTEN	TOTAL	CORE	EXTEN	TOTAL	CORE	EXTEN	TOTAL
1. BASELINE DEFICIT	(16,793)	0	(16,793)	(25,100)	(19,500)	(44,600)	(32,945)	(24,600)	(57,545)	(52,300)	(32,000)	(84,300)	(57,600)	(39,600)	(96,400)	(64,200)	(45,300)	(109,500)	(71,700)	(49,300)	(121,000)	(75,100)	(60,500)	(135,600)	(80,300)	(69,700)	(150,000)
EXTRAORDINARY FISCAL IMPACTS																											
2. ADA PARATRANSIT REQUIREMENT (SUBSIDY)	1,947	0	1,947	3,155	316	3,471	4,008	401	4,409	4,128	413	4,541	4,252	425	4,677	4,379	438	4,817	4,511	451	4,962	4,646	465	5,111	4,785	479	5,264
3. EAST BAY EXTENSION REQUIREMENT (SUBSIDY)	0	0	0	0	13,756	13,756	0	18,104	18,104	0	24,818	24,818	0	30,866	30,866	0	0	0	0	0	0	0	0	0	0	0	0
4. SAMTRANS NET COST REIMBURSEMENT (SUBSIDY)	0	0	0	0	3,670	3,670	0	3,402	3,402	0	3,315	3,315	0	2,954	2,954	0	2,749	2,749	0	2,635	2,635	0	13,795	13,795	0	22,896	22,896
SUBTOTAL SUBSIDIES	1,947	0	1,947	3,155	17,752	20,907	4,008	21,907	25,914	4,128	28,547	32,674	4,252	34,377	38,629	4,379	3,187	7,566	4,511	3,086	7,597	4,646	14,260	18,905	4,785	23,474	28,260
BART ACTIONS																											
5. 3 ROUTE EARLY SATURDAY SERVICE (Cost Reduction)	276	0	276	295	44	340	316	62	377	337	65	402	360	67	427	383	87	470	408	92	500	434	117	551	461	123	584
6. 3%-4% ANNUAL LABOR INFLATION vs 5% BASE (Cost Reduction)	3,237	0	3,237	5,719	800	7,519	10,674	1,521	12,195	13,060	1,950	15,030	15,829	2,477	18,306	18,720	3,472	22,191	21,802	4,142	25,944	25,347	6,130	31,477	28,903	8,326	37,229
7. 2.5% COST CONTAINMENT (Cost Reduction)	5,831	0	5,831	6,185	723	6,908	6,784	1,031	7,815	7,148	1,128	8,275	7,530	1,316	8,846	7,931	1,605	9,536	8,353	1,700	10,053	8,795	2,308	11,103	9,260	2,846	12,106
8. MUNI FASTPASS REVENUE SHARING CHANGE (Additional Revenue)	1,564	0	1,564	1,606	0	1,606	1,646	0	1,646	1,704	0	1,704	1,763	0	1,763	1,834	0	1,834	1,916	0	1,916	2,012	0	2,012	2,113	0	2,113
9. SPECIAL FARE DISCOUNTS (Additional Revenue)	2,446	0	2,446	2,456	182	2,638	2,476	278	2,754	2,510	310	2,820	2,544	361	2,904	2,576	423	3,000	2,612	462	3,074	2,651	561	3,212	2,698	716	3,413
SUBTOTAL Cost Reduction/Additional Revenue	13,354	0	13,354	17,262	1,748	19,010	21,896	2,892	24,788	24,778	3,453	28,231	28,026	4,222	32,247	31,444	5,587	37,031	35,091	6,395	41,486	38,239	9,116	48,355	43,435	12,011	55,446
10. NET FINANCIAL RESULT (OPERATING DEFICIT)	(1,398)	0	(1,398)	(4,683)	(0)	(4,683)	(6,342)	0	(6,342)	(23,394)	(0)	(23,394)	(25,523)	0	(25,523)	(26,377)	(36,527)	(64,903)	(32,099)	(39,819)	(71,917)	(31,215)	(37,125)	(68,340)	(32,080)	(34,215)	(66,295)
11. NEW REVENUE FOR CAPITAL	9,000	0	9,000	20,000	0	20,000	30,000	0	30,000	30,000	0	30,000	30,000	0	30,000	30,000	0	30,000	30,000	0	30,000	30,000	0	30,000	30,000	0	30,000
12. TOTAL NEW REVENUE REQUIRED (Line 10 + Line 11)	10,398	0	10,398	24,683	0	24,683	36,342	0	36,342	53,394	0	53,394	55,523	0	55,523	56,377	36,527	94,903	62,099	39,819	101,917	61,215	37,125	98,340	62,080	34,215	96,295
13. PERMANENT FUNDING SOURCE (Beginning in FY 00)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	36,525	36,525	0	39,819	39,819	0	37,124	37,124	0	34,213	34,213
14. TOTAL REQUIRED FARE INCREASE	10,398	0	10,398	24,683	0	24,683	36,342	0	36,342	53,394	0	53,394	55,523	0	55,523	56,377	0	56,377	62,099	0	62,099	61,215	0	61,215	62,080	0	62,080
15. PERCENT FARE INCREASE	—	—	12.5%	—	—	11.1%	—	—	10.0%	—	—	5.0%	—	—	5.0%	—	—	0.0%	—	—	0.0%	—	—	0.0%	—	—	0.0%
16. ESTIMATED YIELD	—	—	10,600	—	—	24,800	—	—	40,200	—	—	46,500	—	—	50,100	—	—	52,600	—	—	54,200	—	—	68,500	—	—	72,900
17. REMAINING DIFFERENTIAL - ANNUAL (Shortfall Shown in Parentheses)	—	—	202	—	—	117	—	—	(3,858)	—	—	(3,894)	—	—	4,577	—	—	4,223	—	—	2,101	—	—	7,285	—	—	10,820
18. REMAINING DIFFERENTIAL - CUMULATIVE	—	—	202	—	—	318	—	—	4,177	—	—	282	—	—	4,858	—	—	9,083	—	—	11,184	—	—	18,469	—	—	29,290

1. Increase in baseline deficit reflects resumption of PERS premium payment, starting at $12.76 mill in FY 98. This amount is included in Line 10 – Net Financial Result.

APPENDIX A

MASTER SPREADSHEET

BART DEMAND AND SERVICE EXPANSION

HEADWAY REDUCTION AND EXTENSIONS

BART DEMAND & SERVICE EXPANSION PAGE 1
HEADWAY REDUCTION AND EXTENSIONS
FILE: C:\SAT\PFY93\SERVICES\PHI115
10/05/93 TOTAL RANGE = A1..FC80
>POLICY PK HR LF> 1.15
>POLICY BAL PK LF 1.15

BASE SYSTEM PEAK TRAIN CYCLE
[Based On Peak Period Throughput & Includes Trains/Cars Which Make More Than One Loop]

FY & QTR MONTH ENDING	SERVICE LEVEL	EVENT AND/OR SERVICE DESCRIPTION	THEO TB SRVC: MIN TB HDWY seconds	MIN TB HDWY STEP	MAX TB TRAINS PER HR	PLANNED SERVICE REQUIREMENT, ONLINE TRAINS: MIN TB HDWY seconds	MAX TB TRAINS PER HR	BAL OF PK MAX TRAINS	TOTAL TBAY TRAINS	TOTAL E'BAY TRAINS	TOTAL EXT'N TRAINS	TOTAL ONLINE TRAINS	DERIVED TRANSBAY SERVICE: MIN TB HDWY seconds	PK HR TRAINS	BALNC OF PK TRAINS	2-LOOP ONLINE TRAINS	DERIVED EASTBAY SERVICE: PK HR TRAINS	BALNC OF PK TRAINS	2-LOOP ONLINE TRAINS	DERIVED SYSTEMWIDE SERVICE: PEAK HOUR	BALNC OF PK TRAINS	2-LOOP TRAINS	TOTAL THRUPT	TOTAL ONLINE
92-Jun 92	Base	Current FY Actual	180	180	20	212	17	17	34	9	0	43	212	17	20	3	34	4	5	0	9	21	25	3	46	43
93-Sep 92	Base	" "	180	180	20	212	17	17	34	9	0	43	212	17	20	3	34	4	5	0	9	21	25	3	46	43
93-Dec 92	Base	" "	180	180	20	212	17	17	34	9	0	43	212	17	20	3	34	4	5	0	9	21	25	3	46	43
93-Mar 93	Base	" "	180	180	20	212	17	17	34	9	0	43	212	17	20	3	34	4	5	0	9	21	25	3	46	43
93-Jun 93	Base	Current FY Planned	180	180	20	212	17	17	34	9	0	43	212	17	20	3	34	4	5	0	9	21	25	3	46	43
94-Sep 93	**A**	Next FY Planned	180	180	20	212	17	17	34	9	0	43	212	17	20	3	34	4	5	0	9	21	25	3	46	43
94-Dec 93	A	" "	180	180	20	212	17	17	34	9	0	43	212	17	20	3	34	4	5	0	9	21	25	3	46	43
94-Mar 94	A	" "	180	180	20	212	17	17	34	9	0	43	212	17	20	3	34	4	5	0	9	21	25	3	46	43
94-Jun 94	A	" "	180	180	20	212	17	17	34	9	0	43	212	17	20	3	34	4	5	0	9	21	25	3	46	43
95-Sep 94	**B**	Begin SRTP Forecast	180	180	20	200	16	17	33	9	0	44	200	16	20	3	35	4	5	0	9	22	25	3	47	44
95-Dec 94	B		135	165	26	189	19	17	36	9	0	45	189	19	20	3	36	4	5	0	9	23	25	3	48	45
95-Mar 95	B		135	165	26	189	19	17	36	9	0	45	189	19	20	3	36	4	5	0	9	23	25	3	48	45
95-Jun 95	B		135	165	26	189	19	17	36	9	0	45	189	19	20	3	36	4	5	0	9	23	25	3	48	45
96-Sep 95	**C**	No. Concord/Colma	135	165	26	189	19	17	36	9	1	46	189	19	20	3	36	4	5	0	9	23	25	3	46	45
96-Dec 95	C	East Dublin	135	145	26	180	20	17	37	9	4	50	180	20	20	3	37	4	5	0	9	24	25	3	49	46
96-Mar 96	C		135	145	26	171	21	17	38	9	4	51	171	21	20	3	38	4	5	0	9	25	25	3	50	47
96-Jun 96	C		135	145	26	171	21	17	38	9	4	51	171	21	20	3	38	4	5	0	9	25	25	3	50	47
97-Sep 96	C		135	145	26	171	21	17	38	9	4	51	171	21	20	3	38	4	5	0	9	25	25	3	50	47
97-Dec 96	C		135	145	26	171	21	17	38	9	4	51	171	21	20	3	38	4	5	0	9	25	25	3	50	47
97-Mar 97	**D**	West Pittsburg	135	145	26	171	21	17	38	9	6	53	171	21	20	3	38	4	5	0	9	25	25	3	50	47
97-Jun 97	D		135	145	26	164	22	16	40	9	6	55	164	22	21	3	40	4	5	0	9	26	26	3	52	49
98-Sep 97	D		135	145	26	164	22	16	40	9	6	55	164	22	21	3	40	4	5	0	9	26	26	3	52	49
98-Dec 97	D		135	145	26	164	22	18	40	9	6	55	164	22	21	3	40	4	5	0	9	26	26	3	52	49
98-Mar 98	D		135	145	26	164	22	16	40	9	6	55	164	22	21	3	40	4	5	0	9	26	26	3	52	49
98-Jun 98	D		135	145	26	164	22	16	40	9	6	55	164	22	21	3	40	4	5	0	9	26	26	3	52	49
99-Sep 98	D	W. Dublin	120	145	30	164	22	18	40	9	6	55	164	22	21	3	40	4	5	0	9	26	26	3	52	49
99-Dec 98	D		120	145	30	164	22	19	41	9	6	56	164	22	22	3	41	4	5	0	9	26	27	3	53	50
99-Mar 99	D		120	145	30	157	23	19	42	9	6	57	157	23	22	3	42	4	5	0	9	27	27	3	54	51
99-Jun 99	D		120	145	30	157	23	19	42	9	6	57	157	23	22	3	42	4	5	0	9	27	27	3	54	51
00-Sep 99	D		120	145	30	157	23	19	42	9	6	57	157	23	22	3	42	4	5	0	9	27	27	3	54	51
00-Dec 99	**E**	Warm Springs	120	145	30	157	23	19	42	9	10	61	157	23	22	3	42	4	5	0	9	27	27	3	54	51
00-Mar 00	E		120	120	30	157	23	19	42	9	10	61	157	23	22	3	42	4	5	0	9	27	27	3	54	51
00-Jun 00	E		120	120	30	157	23	20	43	9	10	62	157	23	23	3	43	4	5	0	9	27	28	3	55	52
01-Sep 00	E		120	120	30	150	24	20	44	9	10	63	150	24	23	3	44	4	5	0	9	28	28	3	56	53
01-Dec 00	E		120	120	30	150	24	20	44	9	10	63	150	24	23	3	44	4	5	0	9	28	28	3	56	53
01-Mar 01	E		120	120	30	150	24	20	44	9	10	63	150	24	23	3	44	4	5	0	9	28	28	3	56	53
01-Jun 01	E		120	120	30	150	24	20	44	9	10	63	150	24	23	3	44	4	5	0	9	28	28	3	56	53
02-Sep 01	E		120	120	30	150	24	20	44	9	10	63	150	24	23	3	44	4	5	0	9	28	28	3	56	53
02-Dec 01	E		120	120	30	150	24	20	44	9	10	63	150	24	23	3	44	4	5	0	9	28	28	3	56	53
02-Mar 02	**F**	SF Airport	120	120	30	150	24	20	44	9	14	67	150	24	23	3	44	4	5	0	9	28	28	3	56	53
02-Jun 02	F		120	120	30	144	25	21	46	9	14	69	144	25	24	3	48	4	5	0	9	29	29	3	58	55
03-Sep 02	F		120	120	30	138	26	22	48	9	14	71	138	26	25	3	48	4	5	0	9	30	30	3	60	57
03-Dec 02	F		120	120	30	138	26	22	48	9	14	71	138	26	25	3	48	4	5	0	9	30	30	3	60	57
03-Mar 03	F		120	120	30	138	26	22	48	9	14	71	138	26	25	3	48	4	5	0	9	30	30	3	60	57
03-Jun 03	F		120	120	30	138	26	23	49	9	14	72	138	26	26	3	49	4	5	0	9	30	31	3	61	58

TOTAL INCREMENTAL ADDITIONS TO BASE SYSTEM
PERCENT INCREASE OVER BASE SYSTEM

---------- TOTAL RANGE = A1..FO80

»POLICY PK HR LF» 1.15
»POLICY BALPK LF 1.15

FY & QTR MONTH-ENDING	SERVICE LEVEL	EVENT AND/OR SERVICE DESCRIPTION	ADDITIONS FOR EXTENSION SERVICE PLAN INCREMENT: + STATIONS INC	+ STATIONS CUMM	+ MI TRACK INC	+ MI TRACK CUMM	+ TRAINS INC	+ TRAINS CUMM	+ CARS INC	+ CARS CUMM	BASE SYSTEM INCREMENT DEMAND DRIVEN @ POLICY LF: PEAK HOUR TRNS	BLNC OF PK TRNS	TOT PEAK PD TRNS	TOT PEAK PD CARS	TOTAL SYSTEM INCREMENT WIT EXTENSIONS: TRAINS ADDED	TOTAL SYSTEM INCREMENT WIT EXTENSIONS: CARS ADDED	SYSTEM TOTAL WITH EXTENSIONS @ POLICY LF: MAX TRAINS ONLINE	MAX CAR THRUPT	MAX CARS ONLINE	CARS IN FLEET	AVG TRAIN LENGTH
92-Jun 92	Base	Current FY Actual	0	34	0.0	71.5	0	0	0	0	0	0	0	0	0	0	43	380	350	589	8.2
93-Sep 92	Base	" "	0	34	0.0	71.5	0	0	0	0	0	0	0	4	0	4	43	385	355	589	8.3
93-Dec 92	Base	" "	0	34	0.0	71.5	0	0	0	0	0	0	0	(2)	0	(2)	43	383	353	589	8.2
93-Mar 93	Base	" "	0	34	0.0	71.5	0	0	0	0	0	0	0	1	0	1	43	384	354	589	8.2
93-Jun 93	Base	Current FY Planned	0	34	0.0	71.5	0	0	0	0	0	0	0	1	0	1	43	385	355	589	8.3
94-Sep 93	**A**	Next FY Planned	0	34	0.0	71.5	0	0	0	0	0	0	0	3	0	3	43	388	358	589	8.3
94-Dec 93	A	" "	0	34	0.0	71.5	0	0	0	0	0	0	0	(2)	0	(2)	43	386	356	589	8.3
94-Mar 94	A	" "	0	34	0.0	71.5	0	0	0	0	0	0	0	2	0	2	43	388	358	587	8.3
94-Jun 94	A	" "	0	34	0.0	71.5	0	0	0	0	0	0	0	(1)	0	(1)	43	387	357	587	8.3
95-Sep 94	**B**	Begin SRTP Forecast	0	34	0.0	71.5	0	0	0	0	1	0	1	12	1	12	44	399	369	587	8.4
95-Dec 94	B		0	34	0.0	71.5	0	0	0	0	1	0	1	8	1	8	45	405	375	587	8.3
95-Mar 95	B		0	34	0.0	71.5	0	0	0	0	0	0	0	3	0	3	45	409	379	592	8.4
95-Jun 95	B		0	34	0.0	71.5	0	0	0	0	0	0	0	3	0	3	45	412	382	617	8.5
98-Sep 95	**C**	No. Concord/Colma	2	36	3.6	75.3	1	1	6	6	0	0	0	9	1	15	46	421	397	642	8.6
96-Dec 95	C	East Dublin	2	38	14.0	89.3	3	4	32	38	1	0	1	17	4	49	50	439	444	667	8.9
96-Mar 96	C		0	38	0.0	89.3	0	4	0	38	1	0	1	8	1	8	51	444	449	692	8.8
96-Jun 96	C		0	38	0.0	89.3	0	4	0	38	0	0	0	4	0	4	51	448	453	683	8.9
97-Sep 96	C		0	38	0.0	89.3	0	4	0	38	0	0	0	3	0	3	51	451	456	708	8.9
97-Dec 96	C		0	38	0.0	89.3	0	4	0	38	0	0	0	3	0	3	51	454	459	733	9.0
97-Mar 97	**D**	West Pittsburg	1	39	5.8	94.9	2	8	12	50	0	0	0	4	2	18	53	458	474	758	8.9
97-Jun 97	D		0	39	0.0	94.9	0	8	0	50	1	1	2	9	2	9	55	467	483	758	8.8
98-Sep 97	D		0	39	0.0	94.9	0	8	0	50	0	0	0	1	0	1	55	468	484	758	8.8
98-Dec 97	D		0	39	0.0	94.9	0	8	0	50	0	0	0	1	0	1	55	469	485	758	8.8
98-Mar 98	D		0	39	0.0	94.9	0	6	0	50	0	0	0	1	0	1	55	470	486	758	8.8
98-Jun 98	D		0	39	0.0	94.9	0	6	0	50	0	0	0	1	0	1	55	471	487	758	8.9
99-Sep 98	D	W. Dublin	1	40	0.0	94.9	0	6	0	50	0	0	0	8	0	8	55	479	495	758	9.0
99-Dec 98	D		0	40	0.0	94.9	0	8	0	50	0	1	1	4	1	4	56	483	499	758	8.9
99-Mar 99	D		0	40	0.0	94.9	0	8	0	50	1	0	1	2	1	2	57	485	501	758	8.8
99-Jun 99	D		0	40	0.0	94.9	0	8	0	50	0	0	0	1	0	1	57	485	501	758	8.8
00-Sep 99	D		0	40	0.0	94.9	0	8	0	50	0	0	0	1	0	1	57	487	503	758	8.8
00-Dec 99	**E**	Warm Springs	2	42	5.4	100.3	4	10	28	78	0	0	0	11	4	39	81	498	540	819	6.9
00-Mar 00	E		0	42	0.0	100.3	0	10	0	78	0	0	0	4	0	4	81	502	544	844	6.9
00-Jun 00	E		0	42	0.0	100.3	0	10	0	78	0	1	1	4	1	4	82	506	548	844	8.8
01-Sep 00	E		0	42	0.0	100.3	0	10	0	78	1	0	1	3	1	3	83	510	551	844	8.8
01-Dec 00	E		0	42	0.0	100.3	0	10	0	78	0	0	0	1	0	1	83	511	553	844	8.8
01-Mar 01	E		0	42	0.0	100.3	0	10	0	78	0	0	0	1	0	1	83	512	554	844	8.8
01-Jun 01	E		0	42	0.0	100.3	0	10	0	78	0	0	0	1	0	1	83	514	555	844	8.8
02-Sep 01	E		0	42	0.0	100.3	0	10	0	78	0	0	0	2	0	2	83	515	557	844	8.8
02-Dec 01	E		0	42	0.0	100.3	0	10	0	78	0	0	0	2	0	2	83	517	558	869	8.9
02-Mar 02	**F**	SF Airport	3	45	6.4	106.7	4	14	46	124	0	0	0	10	4	56	87	527	811	894	9.1
02-Jun 02	F		0	45	0.0	106.7	0	14	0	124	1	1	2	21	2	21	89	548	832	919	9.2
03-Sep 02	F		0	45	0.0	106.7	0	14	0	124	1	1	2	15	2	15	71	563	647	924	9.1
03-Dec 02	F		0	45	0.0	106.7	0	14	0	124	0	0	0	4	0	4	71	567	651	924	9.2
03-Mar 03	F		0	45	0.0	106.7	0	14	0	124	0	0	0	2	0	2	71	569	653	924	9.2
03-Jun 03	F		0	45	0.0	106.7	0	14	0	124	0	1	1	2	1	2	72	571	656	924	9.1
TOT INCREMENTAL ADDITIONS TO BASE S			11		35.2		14		124		9	6	15	186	29	310					
PERCENT INCREASE OVER BASE SYSTEM			32%		49%																

PADRON MODEL RIDERSHIP AND DERIVED FIGURES

FY & QTR MONTH ENDING	SERVICE LEVEL	EVENT AND/OR SERVICE DESCRIPTION	PADRON BASE RIDERSHIP AVGWKDY	%KHOU	%PKH	FY AVG	FORECAS ADJSTMN	REVISED FORECAST AVGWKDY	%CH	PKHOU	%PKH	FY AVG	%C	FY TOTAL TRIPS	MAX PK HR CONVERSION TBAY	EBAY	TOTAL	BALANCE OF PK PD TRIPS TBAY	EBAY	TOTAL	TOT MAX PK PD TRIPS TBAY	EBAY	TOTAL
92-Jun 92	Base	Current FY Actual	255,409	36,964	14.5%	253,787	255,409	249,721	---	36,141	14.5%	249,548	---	72,987,888	14,814	1,623	16,237	14,104	1,698	15,802	28,718	3,321	32,039
93-Sep 92	Base	* *	256,523	37,198	14.5%		256,523	254,997	2.1%	36,904	14.5%				14,922	1,657	18,580	14,402	1,734	18,136	29,325	3,391	32,718
93-Dec 92	Base	* *	257,637	37,357	14.5%		257,637	252,223	-1.1%	36,503	14.5%				14,760	1,639	18,400	14,246	1,715	15,961	29,006	3,355	32,360
93-Mar 93	Base	* *	258,751	37,519	14.5%		258,751	253,746	0.6%	36,723	14.5%				14,849	1,649	16,499	14,332	1,725	18,057	29,181	3,375	32,556
93-Jun 93	Base	Current FY Planned	259,865	37,640	14.5%	258,194	259,865	255,347	0.6%	36,996	14.5%	254,122	1.8	74,184,873	14,943	1,660	16,603	14,422	1,736	16,158	29,365	3,396	32,761
94-Sep 93	**A**	Next FY Planned	262,133	38,009	14.5%		262,133	258,915	1.4%	37,502	14.5%				15,152	1,683	16,835	14,624	1,761	16,384	29,775	3,444	33,219
94-Dec 93	A	* *	264,401	38,338	14.5%		264,401	256,056	-1.1%	37,088	14.5%				14,984	1,664	16,649	14,462	1,741	16,203	29,446	3,406	32,852
94-Mar 94	A	* *	266,669	38,667	14.5%		266,669	258,657	1.0%	37,465	14.5%				15,137	1,681	16,818	14,609	1,759	18,368	29,746	3,440	33,186
94-Jun 94	A	* *	268,937	39,700	14.8%	265,535	268,937	257,234	-0.6%	37,972	14.8%	257,724	1.4	75,141,152	15,053	1,672	16,725	14,529	1,749	18,278	29,582	3,421	33,003
95-Sep 94	**B**	Begin SRTP Forecast	271,558	40,191	14.8%		271,558	259,740	1.0%	38,342	14.8%				15,200	1,688	16,888	14,670	1,766	16,436	29,870	3,455	33,325
95-Dec 94	B		274,178	40,578	14.8%		273,479	261,579	0.7%	38,614	14.8%				15,308	1,700	17,008	14,774	1,779	16,553	30,082	3,479	33,561
95-Mar 95	B		276,799	40,966	14.8%		275,751	263,751	0.8%	38,934	14.8%				15,435	1,714	17,149	14,897	1,794	16,690	30,331	3,508	33,839
95-Jun 95	B		279,419	41,280	14.8%	275,488	278,022	265,924	0.8%	39,286	14.8%	262,752	2.0	78,592,161	15,562	1,729	17,290	15,019	1,808	18,828	30,581	3,537	34,118
96-Sep 95	**C**	No. Concord/Colma	285,872	42,309	14.8%		287,080	274,587	3.3%	40,566	14.8%				16,099	1,785	17,854	15,509	1,867	17,376	31,578	3,652	35,230
96-Dec 95	C	East Dublin	292,324	43,264	14.8%		296,138	283,251	3.2%	41,846	14.8%				16,578	1,841	18,417	15,998	1,926	17,924	32,574	3,767	36,341
96-Mar 96	C		298,777	44,219	14.8%		299,761	286,717	1.2%	42,358	14.8%				16,779	1,864	18,642	18,194	1,950	18,143	32,972	3,813	36,786
96-Jun 96	C		305,229	44,590	14.6%	295,550	302,177	289,027	0.8%	42,223	14.6%	283,332	7.8	82,591,336	18,914	1,879	18,793	16,324	1,965	18,290	33,238	3,844	37,082
97-Sep 96	C		307,667	44,919	14.6%		304,097	290,864	0.6%	42,491	14.6%				17,021	1,891	18,912	16,428	1,978	18,406	33,449	3,868	37,318
97-Dec 96	C		310,105	45,275	14.6%		306,018	292,701	0.6%	42,760	14.6%				17,129	1,903	19,031	16,532	1,990	18,522	33,661	3,893	37,554
97-Mar 97	**D**	West Pittsburg	312,542	45,631	14.6%		312,099	296,518	2.0%	43,610	14.6%				17,468	1,940	19,410	16,860	2,030	18,890	34,330	3,970	38,300
97-Jun 97	D		314,980	45,978	14.6%	311,323	314,980	301,273	0.9%	43,977	14.6%	295,848	4.4	86,239,797	17,831	1,958	19,589	17,018	2,049	19,065	34,848	4,007	38,853
98-Sep 97	D		317,265	46,321	14.6%		315,811	302,068	0.3%	44,093	14.6%				17,577	1,963	19,640	17,081	2,054	19,115	34,798	4,018	38,755
98-Dec 97	D		319,550	46,654	14.6%		318,909	302,544	0.2%	44,163	14.6%				17,705	1,967	19,671	17,098	2,057	19,145	34,793	4,024	38,818
98-Mar 98	D		321,835	48,988	14.6%		318,973	303,180	0.2%	44,256	14.6%				17,742	1,971	19,713	17,124	2,062	19,185	34,866	4,032	38,898
98-Jun 98	D		324,120	47,160	14.6%	320,693	317,638	303,815	0.2%	44,208	14.6%	302,903	2.4	88,296,350	17,779	1,975	19,754	17,159	2,066	19,225	34,939	4,041	38,980
99-Sep 98	D	W. Dublin	326,390	47,507	14.6%		323,835	309,743	2.0%	45,068	14.6%				18,126	2,013	20,139	17,494	2,106	19,601	35,620	4,120	39,740
99-Dec 98	D		326,660	47,692	14.6%		326,314	312,114	0.8%	45,413	14.6%				18,265	2,029	20,294	17,628	2,122	19,751	35,893	4,151	40,044
99-Mar 99	D		327,929	47,878	14.6%		326,933	312,707	0.2%	45,499	14.6%				18,300	2,033	20,332	17,662	2,126	19,788	35,961	4,159	40,120
99-Jun 99	D		329,199	47,880	14.5%	327,294	327,553	313,299	0.2%	45,567	14.5%	311,948	3.0	90,932,791	18,334	2,036	20,371	17,695	2,130	19,826	36,029	4,167	40,196
00-Sep 99	D		330,520	47,925	14.5%		328,509	314,214	0.3%	45,700	14.5%				18,388	2,042	20,430	17,747	2,137	19,883	36,135	4,179	40,314
00-Dec 99	**E***	Warm Springs	331,842	48,117	14.5%		336,155	321,527	2.3%	46,764	14.5%				18,816	2,090	20,906	18,160	2,186	20,346	36,976	4,276	41,252
00-Mar 00	E		333,163	48,309	14.5%		339,979	325,184	1.1%	47,296	14.5%				19,030	2,114	21,143	18,366	2,211	20,578	37,396	4,325	41,721
00-Jun 00	E		334,484	48,489	14.5%	332,502	342,846	327,927	0.8%	47,538	14.5%	322,167	3.3	93,911,759	19,190	2,132	21,322	18,521	2,230	20,751	37,712	4,361	42,073
01-Sep 00	E		335,393	48,632	14.5%		343,778	328,818	0.3%	47,668	14.5%				19,242	2,137	21,380	18,572	2,236	20,808	37,814	4,373	42,187
01-Dec 00	E		336,303	48,764	14.5%		344,710	329,710	0.3%	47,797	14.5%				19,295	2,143	21,438	18,622	2,242	20,864	37,917	4,385	42,302
01-Mar 01	E		337,212	48,896	14.5%		345,642	330,601	0.3%	47,926	14.5%				19,347	2,149	21,496	18,672	2,248	20,920	38,019	4,397	42,416
01-Jun 01	E		338,121	49,193	14.5%	336,757	346,574	331,493	0.3%	48,229	14.5%	330,155	2.5	96,240,314	19,399	2,155	21,554	18,723	2,254	20,977	38,122	4,409	42,530
02-Sep 01	E		339,812	49,273	14.5%		347,614	332,487	0.3%	48,373	14.5%				19,457	2,161	21,618	18,779	2,261	21,040	38,236	4,422	42,658
02-Dec 01	E		341,511	49,519	14.5%		348,657	333,485	0.3%	48,518	14.5%				19,516	2,168	21,683	18,835	2,268	21,103	38,351	4,435	42,786
02-Mar 02	**F***	SF Airport	378,063	54,529	14.5%		370,422	354,303	6.2%	51,547	14.5%				20,734	2,303	23,037	20,011	2,409	22,420	40,745	4,712	45,457
02-Jun 02	F		379,259	54,601	14.4%	359,161	375,978	359,617	1.5%	51,773	14.4%	345,016	4.5	100,572,203	21,045	2,338	23,382	20,311	2,445	22,757	41,356	4,783	46,139
03-Sep 02	F		382,483	55,078	14.4%		379,736	363,214	1.0%	52,291	14.4%				21,255	2,361	23,616	20,514	2,470	22,984	41,770	4,831	46,600
03-Dec 02	F		385,734	55,546	14.4%		382,586	365,938	0.7%	52,683	14.4%				21,415	2,379	23,793	20,668	2,488	23,157	42,083	4,867	46,950
03-Mar 03	F		389,013	56,018	14.4%		384,499	367,767	0.5%	52,947	14.4%				21,522	2,390	23,912	20,772	2,501	23,272	42,293	4,891	47,185
03-Jun 03	F		392,320	56,494	14.4%	387,388	386,422	369,606	0.5%	53,211	14.4%	366,622	6.3	106,870,415	21,629	2,402	24,032	20,875	2,513	23,389	42,505	4,916	47,420

TOTAL INCREMENTAL ADDITIONS TO BASE SYSTEM
PERCENT INCREASE OVER BASE SYSTEM

»POLICY PK HR LF» 1.15
»POLICY BALPK LF» 1.15

FY & QTR MONTH-ENDING	SERVICE LEVEL	EVENT AND/OR SERVICE DESCRIPTION	MAXIMUM TRANSBAY PK HR TRIPS — CAR & PASSENGER THROUGHPUT Policy Load Factor = 1.15				AVG TRAIN LENGTH	BALANCE OF PEAK TRANSBAY TRIPS — CAR & PASSENGER THROUGHPUT Policy Load Factor = 1.15				AVG TRAIN LENGTH	TOTAL PEAK TRANSBAY TRIPS — CAR & PASSENGER THROUGHPUT Policy Load Factor = 1.15				AVG TRAIN LENGTH
			TRIPS	CARS	SEATS	LF		TRIPS	CARS	SEATS	LF		TRIPS	CARS	SEATS	LF	
92-Jun 92	Base	Current FY Actual	14,614	170	12,240	1.19	10.0	14,104	170	12,265	1.15	8.5	28,718	340	24,505	1.17	9.2
93-Sep 92	Base	" "	14,922	170	12,240	1.22	10.0	14,402	174	12,524	1.15	8.7	29,325	344	24,764	1.18	9.3
93-Dec 92	Base	" "	14,760	'0	12,240	1.21	10.0	14,246	172	12,387	1.15	8.6	29,006	342	24,627	1.18	9.2
93-Mar 93	Base	" "	14,849	0	12,240	1.21	10.0	14,332	173	12,462	1.15	8.7	29,181	343	24,702	1.18	9.3
93-Jun 93	Base	Current FY Planned	14,943	170	12,240	1.22	10.0	14,422	174	12,541	1.15	8.7	29,365	344	24,781	1.18	9.3
94-Sep 93	"A"	Next FY Planned	15,152	170	12,240	1.24	10.0	14,624	177	12,718	1.15	8.8	29,775	347	24,956	1.19	9.4
94-Dec 93	A	" "	14,964	170	12,240	1.22	10.0	14,462	175	12,578	1.15	8.7	29,448	345	24,818	1.19	9.3
94-Mar 94	A	" "	15,137	170	12,240	1.24	10.0	14,609	178	12,703	1.15	8.8	29,746	346	24,943	1.19	9.4
94-Jun 94	A	" "	15,053	170	12,240	1.23	10.0	14,529	175	12,634	1.15	8.6	29,582	345	24,874	1.19	9.3
95-Sep 94	"B"	Begin SRTP Forecast	15,200	180	12,960	1.17	10.0	14,670	177	12,757	1.15	8.9	29,870	357	25,717	1.18	9.4
95-Dec 94	B		15,308	185	13,311	1.15	9.7	14,774	178	12,847	1.15	6.9	30,082	363	26,158	1.15	9.3
95-Mar 95	B		15,435	186	13,421	1.15	9.8	14,897	180	12,954	1.15	9.0	30,331	366	26,375	1.15	9.4
95-Jun 95	B		15,562	188	13,532	1.15	9.9	15,019	161	13,060	1.15	9.1	30,581	369	26,592	1.15	9.5
96-Sep 95	"C"	No. Concord/Colma	18,069	190	13,680	1.17	10.0	15,509	187	13,486	1.15	9.4	31,576	377	27,166	1.16	9.7
96-Dec 95	C	East Dublin	18,578	200	14,400	1.15	10.0	15,998	193	13,911	1.15	9.7	32,574	393	28,311	1.15	9.8
96-Mar 96	C		16,779	203	14,590	1.15	9.8	16,194	198	14,082	1.15	9.6	32,972	398	28,672	1.15	9.7
96-Jun 96	C		18,914	204	14,708	1.15	9.7	16,324	197	14,195	1.15	9.9	33,238	401	28,903	1.15	9.6
97-Sep 96	C		17,021	206	14,801	1.15	9.8	16,428	198	14,285	1.15	9.9	33,449	404	29,086	1.15	9.9
97-Dec 96	C		17,129	207	14,895	1.15	9.9	16,532	200	14,375	1.15	10.0	33,661	407	29,270	1.15	9.9
97-Mar 97	"D"	West Pittsburg	17,469	210	15,120	1.16	10.0	16,860	200	14,400	1.17	10.0	34,330	410	29,520	1.16	10.0
97-Jun 97	D		17,631	213	15,331	1.15	9.7	17,016	206	14,796	1.15	9.6	34,648	418	30,127	1.15	9.7
98-Sep 97	D		17,677	213	15,371	1.15	9.7	17,061	206	14,835	1.15	9.6	34,738	420	30,207	1.15	9.8
98-Dec 97	D		17,705	214	15,396	1.15	9.7	17,088	206	14,859	1.15	9.6	34,793	420	30,254	1.15	9.6
98-Mar 98	D		17,742	214	15,428	1.15	9.7	17,124	207	14,890	1.15	9.6	34,866	421	30,318	1.15	9.6
98-Jun 98	D		17,779	215	15,460	1.15	9.8	17,159	207	14,921	1.15	9.9	34,939	422	30,382	1.15	9.6
99-Sep 98	D	W. Dublin	18,126	219	15,762	1.15	10.0	17,494	210	15,120	1.16	10.0	35,620	429	30,882	1.15	10.0
99-Dec 98	D		18,265	220	15,840	1.15	10.0	17,628	213	15,329	1.15	9.7	35,893	433	31,169	1.15	9.6
99-Mar 99	D		18,300	221	15,913	1.15	9.8	17,662	213	15,358	1.15	9.7	35,961	434	31,271	1.15	9.7
99-Jun 99	D		18,334	221	15,943	1.15	9.6	17,695	214	15,387	1.15	9.7	36,029	435	31,330	1.15	9.7
00-Sep 99	D		18,388	222	15,989	1.15	9.7	17,747	214	15,432	1.15	9.7	36,135	436	31,421	1.15	9.7
00-Dec 99	"E"	Warm Springs	18,616	227	16,362	1.15	9.9	18,160	219	15,791	1.15	10.0	36,976	447	32,153	1.15	9.9
00-Mar 00	E		19,030	230	16,548	1.15	10.0	16,366	220	15,840	1.16	10.0	37,396	450	32,388	1.15	10.0
00-Jun 00	E		19,190	230	16,560	1.16	10.0	16,521	224	16,105	1.15	9.7	37,712	454	32,665	1.15	9.9
01-Sep 00	E		19,242	232	16,733	1.15	9.7	16,572	224	16,149	1.15	9.8	37,814	457	32,882	1.15	9.7
01-Dec 00	E		19,295	233	16,778	1.15	9.7	16,622	225	16,193	1.15	9.8	37,917	458	32,971	1.15	9.7
01-Mar 01	E		19,347	234	16,823	1.15	9.7	16,672	226	16,237	1.15	9.8	38,019	459	33,060	1.15	9.8
01-Jun 01	E		19,399	234	16,869	1.15	9.8	16,723	226	16,281	1.15	9.6	38,122	460	33,149	1.15	9.8
02-Sep 01	E		19,457	235	16,919	1.15	9.8	16,779	227	16,329	1.15	9.9	38,236	462	33,249	1.15	9.8
02-Dec 01	E		19,516	236	16,970	1.15	9.8	16,835	227	16,378	1.15	9.9	38,351	463	33,348	1.15	9.9
02-Mar 02	"F"	SF Airport	20,734	240	17,280	1.20	10.0	20,011	230	16,560	1.21	10.0	40,745	470	33,840	1.20	10.0
02-Jun 02	F		21,045	250	18,000	1.17	10.0	20,311	240	17,280	1.16	10.0	41,356	490	35,280	1.17	10.0
03-Sep 02	F		21,255	257	18,483	1.15	9.9	20,514	248	17,839	1.15	9.9	41,770	504	36,321	1.15	9.9
03-Dec 02	F		21,415	259	18,621	1.15	9.9	20,668	250	17,972	1.15	10.0	42,083	508	36,594	1.15	10.0
03-Mar 03	F		21,522	260	18,715	1.15	10.0	20,772	250	18,000	1.15	10.0	42,293	510	36,715	1.15	10.0
03-Jun 03	F		21,629	260	18,720	1.16	10.0	20,875	252	18,152	1.15	9.7	42,505	512	36,872	1.15	9.6

HEADWAY REDUCTION AND EXTENSIONS
FILE: C:\SRTP\FY93\SERVICE\SPH1115
10/05/93 TOTAL RANGE = A1..FC60
>POLICY PK HR LF> 1.15
>POLICY BAL PK LF> 1.15

FY & QTR MONTH-ENDING	SERVICE LEVEL	EVENT AND/OR SERVICE DESCRIPTION	MAXIMUM EASTBAY PK HR TRIPS — CAR & PASSENGER THROUGHPUT — Policy Load Factor = 1.15					BALANCE OF PEAK EASTBAY TRIPS — CAR & PASSENGER THROUGHPUT — Policy Load Factor = 1.15					TOTAL PEAK EASTBAY TRIPS — CAR & PASSENGER THROUGHPUT — Policy Load Factor = 1.15				
			TRIPS	CARS	SEATS	LF	AVG TRAIN LENGTH	TRIPS	CARS	SEATS	LF	AVG TRAIN LENGTH	TRIPS	CARS	SEATS	LF	AVG TRAIN LENGTH
92-Jun 92	Base	Current FY Actual	1,623	20	1,411	1.15	4.9	1,698	21	1,477	1.15	4.1	3,321	40	2,888	1.15	4.5
93-Sep 92	Base	" "	1,657	20	1,441	1.15	5.0	1,734	21	1,508	1.15	4.2	3,391	41	2,949	1.15	4.6
93-Dec 92	Base	" "	1,639	20	1,426	1.15	5.0	1,715	21	1,491	1.15	4.1	3,355	41	2,917	1.15	4.5
93-Mar 93	Base	" "	1,649	20	1,434	1.15	5.0	1,725	21	1,500	1.15	4.2	3,375	41	2,935	1.15	4.5
93-Jun 93	Base	Current FY Planned	1,660	20	1,443	1.15	5.0	1,736	21	1,510	1.15	4.2	3,396	41	2,953	1.15	4.6
94-Sep 93	**A**	Next FY Planned	1,683	20	1,463	1.15	5.1	1,761	21	1,531	1.15	4.3	3,444	42	2,994	1.15	4.6
94-Dec 93	A	" "	1,664	20	1,447	1.15	5.0	1,741	21	1,514	1.15	4.2	3,406	41	2,961	1.15	4.6
94-Mar 94	A	" "	1,681	20	1,462	1.15	5.1	1,759	21	1,529	1.15	4.2	3,440	42	2,991	1.15	4.6
94-Jun 94	A	" "	1,672	20	1,454	1.15	5.0	1,749	21	1,521	1.15	4.2	3,421	41	2,975	1.15	4.6
95-Sep 94	**B**	Begin SRTP Forecast	1,688	20	1,468	1.15	5.1	1,766	21	1,536	1.15	4.3	3,455	42	3,004	1.15	4.6
95-Dec 94	B		1,700	21	1,478	1.15	5.1	1,779	21	1,547	1.15	4.3	3,479	42	3,025	1.15	4.7
95-Mar 95	B		1,714	21	1,491	1.15	5.2	1,794	22	1,560	1.15	4.3	3,508	42	3,050	1.15	4.7
95-Jun 95	B		1,729	21	1,503	1.15	5.2	1,808	22	1,572	1.15	4.4	3,537	43	3,075	1.15	4.7
96-Sep 95	**C**	No. Concord/Colma	1,785	22	1,552	1.15	5.4	1,867	23	1,624	1.15	4.5	3,652	44	3,176	1.15	4.9
96-Dec 95	C	East Dublin	1,841	22	1,601	1.15	5.6	1,926	23	1,675	1.15	4.7	3,767	45	3,276	1.15	5.1
96-Mar 96	C		1,864	23	1,621	1.15	5.6	1,950	24	1,695	1.15	4.7	3,813	48	3,316	1.15	5.1
96-Jun 96	C		1,879	23	1,634	1.15	5.7	1,965	24	1,709	1.15	4.7	3,844	48	3,343	1.15	5.2
97-Sep 96	C		1,891	23	1,644	1.15	5.7	1,978	24	1,720	1.15	4.6	3,868	47	3,364	1.15	5.2
97-Dec 96	C		1,903	23	1,654	1.15	5.7	1,990	24	1,731	1.15	4.6	3,893	47	3,385	1.15	5.2
97-Mar 97	**D**	West Pittsburg	1,940	23	1,687	1.15	5.9	2,030	25	1,765	1.15	4.9	3,970	48	3,452	1.15	5.3
97-Jun 97	D		1,958	24	1,703	1.15	5.9	2,049	25	1,781	1.15	4.9	4,007	48	3,484	1.15	5.4
98-Sep 97	D		1,983	24	1,707	1.15	5.9	2,054	25	1,786	1.15	5.0	4,018	49	3,493	1.15	5.4
98-Dec 97	D		1,967	24	1,710	1.15	5.9	2,057	25	1,789	1.15	5.0	4,024	49	3,499	1.15	5.4
98-Mar 98	D		1,971	24	1,714	1.15	6.0	2,062	25	1,793	1.15	5.0	4,032	49	3,506	1.15	5.4
98-Jun 98	D		1,975	24	1,717	1.15	6.0	2,066	25	1,796	1.15	5.0	4,041	49	3,514	1.15	5.4
99-Sep 98	D	W. Dublin	2,013	24	1,751	1.15	6.1	2,106	25	1,832	1.15	5.1	4,120	50	3,582	1.15	5.5
99-Dec 98	D		2,029	25	1,764	1.15	6.1	2,122	26	1,846	1.15	5.1	4,151	50	3,610	1.15	5.6
99-Mar 99	D		2,033	25	1,767	1.15	6.1	2,126	26	1,849	1.15	5.1	4,159	50	3,617	1.15	5.6
99-Jun 99	D		2,036	25	1,771	1.15	6.1	2,130	26	1,853	1.15	5.1	4,167	50	3,623	1.15	5.6
00-Sep 99	D		2,042	25	1,776	1.15	6.2	2,137	26	1,858	1.15	5.2	4,179	50	3,634	1.15	5.6
00-Dec 99	**E**	Warm Springs	2,090	25	1,817	1.15	6.3	2,186	26	1,901	1.15	5.3	4,278	52	3,719	1.15	5.7
00-Mar 00	E		2,114	26	1,838	1.15	6.4	2,211	27	1,923	1.15	5.3	4,325	52	3,761	1.15	5.8
00-Jun 00	E		2,132	26	1,853	1.15	6.4	2,230	27	1,939	1.15	5.4	4,361	53	3,793	1.15	5.9
01-Sep 00	E		2,137	26	1,859	1.15	6.5	2,236	27	1,944	1.15	5.4	4,373	53	3,803	1.15	5.9
01-Dec 00	E		2,143	26	1,864	1.15	6.5	2,242	27	1,950	1.15	5.4	4,385	53	3,813	1.15	5.9
01-Mar 01	E		2,149	26	1,869	1.15	6.5	2,248	27	1,955	1.15	5.4	4,397	53	3,823	1.15	5.9
01-Jun 01	E		2,155	26	1,874	1.15	6.5	2,254	27	1,960	1.15	5.4	4,409	53	3,834	1.15	5.9
02-Sep 01	E		2,161	26	1,879	1.15	6.5	2,261	27	1,966	1.15	5.5	4,422	53	3,845	1.15	5.9
02-Dec 01	E		2,168	26	1,885	1.15	6.5	2,268	27	1,972	1.15	5.5	4,435	54	3,857	1.15	6.0
02-Mar 02	**F**	SF Airport	2,303	28	2,003	1.15	7.0	2,409	29	2,095	1.15	5.6	4,712	57	4,098	1.15	6.3
02-Jun 02	F		2,338	28	2,033	1.15	7.1	2,445	30	2,126	1.15	5.9	4,783	58	4,159	1.15	6.4
03-Sep 02	F		2,361	29	2,053	1.15	7.1	2,470	30	2,148	1.15	6.0	4,831	58	4,201	1.15	6.5
03-Dec 02	F		2,379	29	2,068	1.15	7.2	2,488	30	2,164	1.15	6.0	4,867	59	4,232	1.15	6.5
03-Mar 03	F		2,390	29	2,079	1.15	7.2	2,501	30	2,175	1.15	6.0	4,891	59	4,253	1.15	6.6
03-Jun 03	F		2,402	29	2,089	1.15	7.3	2,513	30	2,185	1.15	6.1	4,918	59	4,275	1.15	6.6

BART DEMAND & SERVICE EXPANSION
HEADWAY REDUCTION AND EXTENSIONS
FILE: C:\BRTP\SIM\RVICES\P4115
12/05/03 TOTAL RANGE - A1, FC40
«POLICY PK HR LF» 0.15
«POLICY PK/HR LF» 0.15

FY & QTR MONTH ENDING	SERVICE LEVEL	EVENT AND/OR SERVICE DESCRIPTION	MAXIMUM SYSTEM PEAK HOUR TRIPS — CAR & PASSENGER THRUPUT — Policy Load Factor = 1.15				AVG TRAIN LENGTH	BALANCE OF PEAK SYSTEM TRIPS — CAR & PASSENGER THRUPUT — Policy Load Factor = 1.15				AVG TRAIN LENGTH	TOTAL PEAK SYSTEM TRIPS — CAR & PASSENGER THRUPUT — Policy Load Factor = 1.15		AVG TRAIN LENGTH	FLEET STATUS MAX CARS ONLINE	MW/ BK ROT	ON LINE ROT	ON LINE SPRS	TOT SVC ROT	IN FOR REHAB	SHOP & PMs	XS A's	CARS + (-)	CAR BUY NEW CARS
			TRIPS	CARS	SEATS	LF		TRIPS	CARS	SEATS	LF		TRIPS	CARS		SEATS	LF										
02-Jun 02	Base	Current FY Actual	16,237	190	13,651	1.19	9.0	15,802	191	13,741	1.15	7.6	32,039	380		27,393	1.17	8.3	350	40	380	56	446	0	106	20	14	0
03-Sep 02	Base	" "	16,580	190	13,681	1.21	9.0	16,136	195	14,031	1.15	7.8	32,716	385		27,713	1.18	8.4	355	40	385	56	451	0	106	20	10	0
03-Dec 02	Base	" "	16,400	190	13,668	1.20	9.0	15,961	193	13,879	1.15	7.7	32,360	383		27,544	1.17	8.3	353	40	383	56	449	0	106	20	12	0
03-Mar 03	Base	" "	16,499	190	13,674	1.21	9.0	16,057	194	13,963	1.15	7.8	32,556	384		27,637	1.18	8.3	354	40	384	56	450	0	106	20	11	0
03-Jun 03	Base	Current FY Planned	16,503	190	13,683	1.21	9.0	16,158	195	14,051	1.15	7.8	32,761	385		27,734	1.18	8.4	355	40	385	56	451	0	106	20	8	0
94-Sep 03	"A"	Next FY Planned	16,835	190	13,703	1.23	9.1	16,364	196	14,247	1.15	7.9	33,219	386		27,951	1.19	8.4	356	40	386	56	454	0	106	20	6	0
94-Dec 03	A	" "	16,649	190	13,687	1.22	9.1	16,203	196	14,090	1.15	7.8	32,852	386		27,777	1.18	8.4	356	40	386	56	452	0	106	20	9	0
94-Mar 04	A	" "	16,818	190	13,702	1.23	9.1	16,368	196	14,233	1.15	7.9	33,186	386		27,935	1.19	8.4	356	40	386	56	454	2	106	20	5	0
94-Jun 04	A	" "	16,725	190	13,694	1.22	9.1	16,278	197	14,155	1.15	7.9	33,003	387		27,849	1.19	8.4	357	40	387	56	453	2	106	20	6	0
95-Sep 94	"B"	Begin SRTP Forecast	16,586	200	14,428	1.17	9.1	16,436	199	14,293	1.15	7.9	33,325	399		28,721	1.16	8.5	369	40	400	56	465	2	106	16	(4)	0
95-Dec 94	B		17,008	205	14,789	1.15	6.9	16,553	200	14,394	1.15	6.0	33,561	405		29,183	1.15	8.4	375	40	415	56	471	2	106	16	(8)	0
95-Mar 95	B		17,149	207	14,912	1.15	9.0	16,690	202	14,513	1.15	8.1	33,839	409		29,425	1.15	8.5	379	40	419	56	475	2	109	16	(8)	5
95-Jun 95	B		17,290	209	15,035	1.15	9.1	16,828	203	14,633	1.15	8.1	34,118	412		29,668	1.15	8.6	382	40	422	56	478	2	114	16	9	25
95-Sep 95	"C"	No. Concord/Colma	17,854	212	15,230	1.17	9.2	17,376	210	15,109	1.15	8.4	35,230	421		30,341	1.16	8.8	397	40	437	56	493	2	116	14	17	25
96-Dec 95	C	East Dublin	18,417	222	16,001	1.15	9.3	17,924	216	15,566	1.15	8.7	36,341	439		31,567	1.15	9.0	444	40	484	56	550	2	123	6	(12)	25
96-Mar 96	C		18,642	225	16,211	1.15	9.0	18,143	219	15,777	1.15	8.8	36,786	444		31,968	1.15	8.9	449	40	489	56	555	2	127	4	6	25
96-Jun 96	C		18,793	227	16,341	1.15	9.1	18,290	221	15,904	1.15	8.8	37,082	448		32,245	1.15	9.0	453	40	493	56	559	36	131	4	(11)	25
97-Sep 96	C		18,912	228	16,445	1.15	9.1	18,406	222	16,005	1.15	8.9	37,318	451		32,450	1.15	9.0	456	40	496	56	562	36	134	0	12	25
97-Dec 96	C		19,031	230	16,549	1.15	9.2	18,522	224	16,106	1.15	8.9	37,554	454		32,655	1.15	9.1	459	40	499	56	565	36	137	0	31	25
97-Mar 97	"D"	West Pittsburg	19,410	233	16,807	1.15	9.3	18,890	225	16,165	1.17	9.0	38,300	458		32,972	1.16	9.2	474	40	514	56	580	36	140	0	36	25
97-Jun 97	D		19,589	237	17,034	1.15	9.1	19,065	230	16,578	1.15	8.9	38,653	467		33,612	1.15	9.0	483	40	523	56	589	36	139	0	30	0
98-Sep 97	D		19,640	237	17,079	1.15	9.1	19,115	231	16,622	1.15	8.9	38,755	468		33,700	1.15	9.0	484	40	524	56	590	36	139	0	29	0
98-Dec 97	D		19,677	238	17,106	1.15	9.1	19,145	231	16,648	1.15	8.9	38,816	469		33,753	1.15	9.0	485	40	525	56	591	36	139	0	28	0
98-Mar 98	D		19,713	238	17,142	1.15	9.2	19,185	232	16,683	1.15	8.9	38,898	470		33,824	1.15	9.0	486	40	526	56	592	36	139	0	27	0
98-Jun 98	D		19,754	239	17,177	1.15	9.2	19,225	232	16,718	1.15	8.9	38,980	471		33,895	1.15	9.1	487	40	527	56	593	36	139	0	26	0
99-Sep 98	D	W. Dublin	20,139	243	17,513	1.15	9.4	19,601	235	16,952	1.16	9.1	39,740	479		34,464	1.15	9.2	495	40	535	56	601	36	139	0	16	0
99-Dec 98	D		20,294	245	17,604	1.15	9.4	19,751	239	17,174	1.15	8.8	40,044	483		34,779	1.15	9.1	499	40	539	56	605	36	139	0	14	0
99-Mar 99	D		20,332	246	17,680	1.15	9.1	19,768	239	17,207	1.15	8.9	40,120	485		34,887	1.15	9.0	501	40	541	56	607	36	139	0	12	0
99-Jun 99	D		20,371	246	17,714	1.15	9.1	19,826	239	17,240	1.15	8.9	40,196	485		34,953	1.15	9.0	501	40	541	56	607	36	139	0	11	0
00-Sep 99	D		20,430	247	17,765	1.15	9.1	19,883	240	17,290	1.15	8.9	40,314	487		35,055	1.15	9.0	503	40	543	56	609	36	139	0	10	0
00-Dec 99	"E"	Warm Springs	20,906	252	18,179	1.15	9.4	20,346	246	17,682	1.15	9.1	41,252	498		35,871	1.15	9.2	540	40	580	56	646	0	144	0	29	25
00-Mar 00	E		21,143	255	18,386	1.15	9.5	20,578	247	17,763	1.18	9.1	41,721	502		36,148	1.15	9.3	544	40	584	56	650	0	148	0	46	25
00-Jun 00	E		21,322	258	18,413	1.18	9.5	20,751	251	18,045	1.15	9.0	42,073	506		36,458	1.15	9.2	548	40	588	56	654	0	148	0	42	0
01-Sep 00	E		21,380	258	18,591	1.15	9.2	20,808	251	18,094	1.15	9.0	42,187	510		36,665	1.15	9.1	551	40	591	56	657	0	148	0	39	0
01-Dec 00	E		21,438	259	18,642	1.15	9.2	20,864	252	18,143	1.15	9.0	42,302	511		36,764	1.15	9.1	553	40	593	56	659	0	148	0	37	0
01-Mar 01	E		21,496	260	18,692	1.15	9.3	20,920	253	18,192	1.15	9.0	42,416	512		36,864	1.15	9.1	554	40	594	56	660	0	148	0	36	0
01-Jun 01	E		21,554	260	18,742	1.15	9.3	20,977	253	18,241	1.15	9.0	42,530	514		36,963	1.15	9.2	555	40	595	56	661	0	148	0	35	0
02-Sep 01	E		21,618	261	18,799	1.15	9.3	21,040	254	18,295	1.15	9.1	42,658	515		37,094	1.15	9.2	557	40	597	56	663	0	148	0	33	0
02-Dec 01	E		21,683	262	18,855	1.15	9.4	21,103	255	18,350	1.15	9.1	42,786	517		37,205	1.15	9.2	558	40	598	56	664	0	153	0	52	25
02-Mar 02	"F"	SF Airport	23,007	268	19,283	1.19	9.6	22,420	259	18,655	1.20	9.3	45,457	527		37,938	1.20	9.4	611	40	651	56	717	0	157	0	20	25
02-Jun 02	F		23,382	278	20,033	1.17	9.6	22,757	270	19,406	1.17	9.3	46,139	548		39,439	1.17	9.4	632	40	672	56	738	0	161	0	20	25
03-Sep 02	F		23,616	285	20,536	1.15	9.5	22,984	278	19,966	1.15	9.3	46,600	563		40,522	1.15	9.4	647	40	687	56	753	0	162	0	9	5
03-Dec 02	F		23,793	287	20,690	1.15	9.6	23,157	280	20,136	1.15	9.3	46,950	567		40,828	1.15	9.5	651	40	691	56	757	0	162	0	5	0
03-Mar 03	F		23,912	289	20,793	1.15	9.6	23,272	280	20,175	1.15	9.3	47,185	569		40,998	1.15	9.5	653	40	693	56	759	0	162	0	3	0
03-Jun 03	F		24,032	289	20,809	1.15	9.6	23,389	282	20,338	1.15	9.1	47,420	571		41,147	1.15	9.4	656	40	696	56	762	0	162	0	0	0

FLEET INVENTORY AND ADDITIONS BY CAR TYPE

FY & QTR MONTH-ENDING	SERVICE LEVEL	EVENT AND/OR SERVICE DESCRIPTION	CAB-A NEW	CAB-A TOT	NOCAB-B NEW	NOCAB-B TOT	CAB-C NEW	CAB-C TOT	CAB-NXT NEW	CAB-NXT TOT	NCAB-NXT NEW	NCAB-NXT TOT	ALL NEW	ALL CUMM	ALL TOT
92-Jun 92	Base	Current FY Actual	0	136	0	303	0	150	0	0	0	0	0	0	589
93-Sep 92	Base	" "	0	136	0	303	0	150	0	0	0	0	0	0	589
93-Dec 92	Base	" "	0	136	0	303	0	150	0	0	0	0	0	0	589
93-Mar 93	Base	" "	0	136	0	303	0	150	0	0	0	0	0	0	589
93-Jun 93	Base	Current FY Planned	0	136	0	303	0	150	0	0	0	0	0	0	589
94-Sep 93	"A"	Next FY Planned	0	136	0	303	0	150	0	0	0	0	0	0	589
94-Dec 93	A	" "	0	136	0	303	0	150	0	0	0	0	0	0	589
94-Mar 94	A	" "	0	136	0	303	0	150	0	0	0	0	0	0	589
94-Jun 94	A	" "	0	136	0	303	0	150	0	0	0	0	0	0	589
95-Sep 94	"B"	Begin SRTP Forecast	0	136	0	303	0	150	0	0	0	0	0	0	589
95-Dec 94	B		0	136	0	303	0	150	0	0	0	0	0	0	589
95-Mar 95	B		0	136	0	303	0	150	5	5	0	0	5	5	594
95-Jun 95	B		0	136	0	303	0	150	25	30	0	0	25	30	619
96-Sep 95	"C"	No. Concord/Colma	0	136	0	303	0	150	25	55	0	0	25	55	644
96-Dec 95	C	East Dublin	0	136	0	303	0	150	25	80	0	0	25	80	669
96-Mar 96	C		0	136	0	303	0	150	0	80	25	25	25	105	694
96-Jun 96	C		0	136	0	303	0	150	0	80	25	50	25	130	719
97-Sep 96	C		(24)	112	24	327	0	150	0	80	25	75	25	155	744
97-Dec 96	C		(24)	88	24	351	0	150	0	80	25	100	25	180	769
97-Mar 97	"D"	West Pittsburg	(24)	64	24	375	0	150	0	80	25	125	25	205	794
97-Jun 97	D		(24)	40	24	399	0	150	0	80	0	125	0	205	794
98-Sep 97	D		(4)	36	4	403	0	150	0	80	0	125	0	205	794
98-Dec 97	D		0	36	0	403	0	150	0	80	0	125	0	205	794
98-Mar 98	D		0	36	0	403	0	150	0	80	0	125	0	205	794
98-Jun 98	D		0	36	0	403	0	150	0	80	0	125	0	205	794
99-Sep 98	D	W. Dublin	0	36	0	403	0	150	0	80	0	125	0	205	794
99-Dec 98	D		0	36	0	403	0	150	0	80	0	125	0	205	794
99-Mar 99	D		0	36	0	403	0	150	0	80	0	125	0	205	794
99-Jun 99	D		0	36	0	403	0	150	0	80	0	125	0	205	794
00-Sep 99	D		0	36	0	403	0	150	0	80	0	125	0	205	794
00-Dec 99	"E"	Warm Springs	0	36	0	403	0	150	25	105	0	125	25	230	819
00-Mar 00	E		0	36	0	403	0	150	25	130	0	125	25	255	844
00-Jun 00	E		0	36	0	403	0	150	0	130	0	125	0	255	844
01-Sep 00	E		0	36	0	403	0	150	0	130	0	125	0	255	844
01-Dec 00	E		0	36	0	403	0	150	0	130	0	125	0	255	844
01-Mar 01	E		0	36	0	403	0	150	0	130	0	125	0	255	844
01-Jun 01	E		0	36	0	403	0	150	0	130	0	125	0	255	844
02-Sep 01	E		0	36	0	403	0	150	0	130	0	125	0	255	844
02-Dec 01	E		0	36	0	403	0	150	25	155	0	125	25	280	869
02-Mar 02	"F"	SF Airport	0	36	0	403	0	150	10	165	15	140	25	305	894
02-Jun 02	F		0	36	0	403	0	150	0	165	25	165	25	330	919
03-Sep 02	F		0	36	0	403	0	150	0	165	5	170	5	335	924
03-Dec 02	F		0	36	0	403	0	150	0	165	0	170	0	335	924
03-Mar 03	F		0	36	0	403	0	150	0	165	0	170	0	335	924
03-Jun 03	F		0	36	0	403	0	150	0	165	0	170	0	335	924

CAR STORAGE CAPACITY, SPACES AVAILABLE vs REQUIRED

FY & QTR MONTH-ENDING	w/ TC @ YARDS 100%	@80%	EXT TAILTRACK 100%	@80%	MAX AVAIL w/ TC	CARS IN STOR	EXCESS/(DEF) w/ TC	56wo
92-Jun 92	651	521	0	0	521	481	40	96
93-Sep 92	651	521	0	0	521	481	40	96
93-Dec 92	651	521	0	0	521	481	40	96
93-Mar 93	651	521	0	0	521	481	40	96
93-Jun 93	651	521	0	0	521	481	40	96
94-Sep 93	721	577	0	0	577	481	96	96
94-Dec 93	721	577	0	0	577	481	96	96
94-Mar 94	721	577	0	0	577	477	100	100
94-Jun 94	721	577	0	0	577	477	100	100
95-Sep 94	721	577	0	0	577	477	100	100
95-Dec 94	721	577	0	0	577	477	100	100
95-Mar 95	721	577	0	0	577	481	96	96
95-Jun 95	721	577	0	0	577	501	76	76
96-Sep 95	721	577	32	26	602	522	81	81
96-Dec 95	721	577	102	82	658	542	116	116
96-Mar 96	721	577	102	82	658	563	95	95
96-Jun 96	721	577	102	82	658	516	143	143
97-Sep 96	721	577	102	82	658	536	121	121
97-Dec 96	721	577	102	82	658	560	99	99
97-Mar 97	721	577	182	146	722	582	141	141
97-Jun 97	721	577	182	146	722	583	140	140
98-Sep 97	721	577	182	146	722	583	139	139
98-Dec 97	721	577	182	146	722	583	139	139
98-Mar 98	721	577	182	146	722	583	139	139
98-Jun 98	721	577	182	146	722	583	139	139
99-Sep 98	721	577	182	146	722	583	139	139
99-Dec 98	721	577	182	146	722	583	139	139
99-Mar 99	721	577	182	146	722	583	139	139
99-Jun 99	721	577	182	146	722	583	139	139
00-Sep 99	721	577	182	146	722	583	139	139
00-Dec 99	721	577	252	202	778	675	103	103
00-Mar 00	721	577	252	202	778	696	82	82
00-Jun 00	721	577	252	202	778	696	82	82
01-Sep 00	721	577	252	202	778	696	82	82
01-Dec 00	721	577	252	202	778	696	82	82
01-Mar 01	721	577	252	202	778	696	82	82
01-Jun 01	721	577	252	202	778	696	82	82
02-Sep 01	721	577	252	202	778	696	82	82
02-Dec 01	721	577	252	202	778	716	62	62
02-Mar 02	721	577	332	266	842	737	105	105
02-Jun 02	721	577	332	266	842	758	65	65
03-Sep 02	721	577	332	266	842	762	80	80
03-Dec 02	721	577	332	266	842	762	80	80
03-Mar 03	721	577	332	266	842	762	80	80
03-Jun 03	721	577	332	266	842	762	80	80

CAR MILES

TOTAL ALL DAYS	WEEKDAYS ONLY	WKDY OFFPK ONLY
10,697,379	4,996,197	3,722,167
10,553,738	5,059,586	3,541,710
10,792,577	5,026,257	3,769,693
10,584,283	5,044,556	3,561,635
10,624,641	5,063,791	3,595,292
10,688,269	5,106,659	3,604,280
10,657,178	5,072,309	3,613,291
10,706,605	5,103,559	3,622,324
10,696,739	5,096,463	3,631,380
10,919,753	5,259,141	3,640,458
11,043,284	5,350,717	3,649,559
11,113,361	5,398,706	3,658,683
11,183,467	5,446,696	3,667,830
12,065,097	5,959,527	3,873,527
15,348,522	7,899,798	4,609,248
15,484,166	7,998,824	4,620,771
15,576,953	8,062,567	4,632,323
15,652,947	8,113,246	4,643,904
15,729,377	8,163,929	4,655,514
17,093,194	8,968,141	4,962,812
17,314,538	9,136,129	4,975,219
17,358,377	9,159,420	4,987,657
17,360,623	9,173,395	5,000,126
17,428,023	9,192,027	5,012,627
17,467,261	9,210,660	5,025,156
17,666,120	9,360,167	5,037,721
17,782,959	9,442,796	5,050,315
17,833,487	9,471,350	5,062,941
17,870,342	9,488,730	5,075,599
17,918,801	9,515,535	5,088,288
19,872,953	10,798,801	5,397,656
19,963,982	10,875,796	5,411,150
20,106,087	10,961,783	5,424,678
20,199,973	11,024,739	5,438,239
20,250,549	11,062,363	5,451,835
20,301,167	11,079,986	5,465,465
20,351,827	11,107,610	5,479,128
20,406,447	11,138,428	5,492,826
20,461,222	11,169,338	5,506,558
23,163,509	12,998,780	5,879,480
23,725,912	13,442,440	5,894,179
24,136,624	13,762,434	5,908,914
24,264,936	13,852,237	5,923,686
24,334,574	13,894,182	5,938,496
24,417,757	13,947,130	5,953,342

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UTICA/OMAHA NE.
2007